

FLORIDA

Health Notes



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Tampa, Fla.

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Pensacola, Fla.

HON. JOHN G. CHRISTOPHER,
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When giving change of address, give both the old and the new.
Anything you want to know about the public health we will try to tell you.
Any information you want about communicable diseases of domestic animals
we will help you to get.
Address communications to Jacksonville, Fla.

*Gold that buys health can never be ill spent,
Nor hours laid out in harmless merriment.*

—John Webster—Westward Ho!

HYDROPHOBIA

REPORT OF A CASE.

Mr. X had a valuable dog. A strange dog bit her on the lip. He wasn't certain whether it was a bite or a scratch, though he saw the attack, and saw the bleeding lip afterward. The attacking dog was killed, its brain examined by the laboratory and the negri bodies found.

The owner decided to give the bitten animal the Pasteur treatment. It was accordingly begun, after a loss of four days from the time the bite was inflicted.

The wound healed kindly, and the animal looked well. She was kept in confinement except that she was let out daily for a little exercise. On the fourteenth day of the bite and the eighth day of the treatment, she bolted when let out, leaving home and not returning for two days, when it was found that she was showing every evidence of hydrophobia. She was immediately confined and kept so till she died.

There are two or three points of unusual interest connected with this case. In the first place, the short incubation period did not give time to immunize the animal. It is very unusual for symptoms to develop as early as the fourteenth day. In the human being the earliest symptoms yet observed was on the seventeenth day. It develops a little earlier in the dog, but the fourteenth day is, to say the least, very unusual.

The underlying principle of the Pasteur treatment is based upon the fact that the incubation period is usually long enough to immunize the animal. When the incubation period is short this is manifestly impossible. The young man that died of hydrophobia in Jacksonville last spring had an incubation period of only eighteen days. He could not be immunized in so short a time. It is only in cases where the incubation time is long enough to effect immunization that the Pasteur treatment is effective.

A second point of interest is in the fact that the owner, while a dog fancier, has never had hydrophobia come near him before. He had accordingly taken little stock in the hydrophobia agitation in his city. He had read the denials of its existence that emanate from others who, by their own acknowledgment, have never seen it.

But now he has seen it with his own eyes, and henceforth those who acknowledge they have not seen it will have a hard time convincing him that it doesn't exist.

But isn't it an interesting freak of mind that doubts the existence of hydrophobia because one hasn't seen it! As well doubt the existence

of China or any other country that one hasn't seen, upon the same argument.

October 20, 1911.

RECURRENCES FOLLOWING DISINFECTION AFTER SCARLET FEVER ,

In Buffalo, in 1909, there were 3,029 cases of scarlet fever. Disinfection is said to be very carefully done in that city, and is tested by control cultures, and if found imperfect is done again. There were 117 recurrences of the disease after disinfection. This is at the rate of 3.8 per cent. In Providence, since disinfection was abandoned, the recurrences after the removal of the warning sign for scarlet fever have been at the rate of 2.81 per cent. of the cases.—*American Journal of Public Hygiene.*

This morning Mr. P. telephoned the office of the State Board of Health that there was a suspicious eruption out at his little saw mill some ten or twelve miles from Jacksonville. A representative of the Board at once went out to see what it was.

A case of smallpox in the person of a Mr. D. was found. A mild case it was. Mr. D. ruffed up and wanted to know who had asked the State Board of Health to send an agent out there? and was it thought he had asked for such? He was told that the Board had detailed its representative out there. When he wanted to know who reported the occurrence to the office, he was informed of Mr. P.'s telephone message.

When told he had smallpox he simply laughed. He had been to see a doctor, so he said, and had been told he had only a rash. And what did the doctor tell him that for, if it was smallpox? He had been taking some medicine and that was what had driven the humor out of his blood. He had not been very sick. He acknowledged he had had a headache.

There were four in the family—himself, wife, and two children. When advised that the children should be vaccinated, he stated he had known of too many having lost their arms. His wife had been vaccinated some three years ago. But his children should not be. Asked if he would go to the isolation hospital, he refused. It was not smallpox he had, and he would not go.

There were seven laborers at the saw mill. Six unvaccinated. They all refused. Afraid to be, they said; they had to work. Mr. P. him-

self didn't care to be vaccinated. Didn't care to have his family vaccinated. But he wanted the patient carried to the hospital. It was explained that that could not be done.

The trip amounted to making a diagnosis, which the patient wouldn't acknowledge was correct; and advising the others that they had better get vaccinated, and as a second choice had better give the patient a wide berth.

Mr. D. had been in Jacksonville when the eruption broke out. He had stayed some three days in a family on 21st street. Had gone to a doctor and he had not pronounced it smallpox. Had gone back out to the mill with the eruption on him. Had gone to Johnson's Mill for a day. Had seen many people. Had talked with many. Had shaken hands with many. No one suspected it was smallpox until Mr. P. got scared and reported it. The patient is well on toward recovery and as many people exposed to it as his daily walk and business relations brought him in contact with. At least ten days of infectivity had passed before it was known that the sufferer had smallpox.

But it's an old, old story. It happens every day. If you don't want smallpox, better not get exposed to it, or better be vaccinated when you do get exposed. Those are the only two ways we know about. And how to keep from getting exposed one sweet day when it is going round loose like that, we are frank to confess, is more than we know. It may never happen—that's your good luck—or it may happen tomorrow—then it's too late to reconsider.

Jacksonville, October 5th.

SMALLPOX UNREPORTED

A physician writes under date of October 12th: "I wish to report a case of smallpox, one John Smith, colored, section hand on railroad who first came to me today. * * * He says the eruption first appeared on September 24th, and that he has had no medical attention. * * *

Very truly yours,

"_____, M. D."

From September 24th to October 12th is about eighteen days. And so this negro has had smallpox eighteen days, without ever seeing a physician, and without the disease having been reported.

Now where this negro had been during that time we know not. What towns or villages or cities he has visited we have no way of knowing. How many people have been exposed during that time we will never know.

But it is safe to say that we will hear from some of the unvaccinated that have been up against him. We will hear from some of them. Some of them will show where they have been. And then it will be *their* neighbors' time to howl. It will be too late to retrench then.

"O Jerusalem, Jerusalem! *thou* that killest the prophets and stonest them which are sent unto thee, how often would I have gathered thy children together, even as a hen gathereth her chickens under her wings, and ye would not!"

The following letter from a prominent physician of Florida speaks for itself as voicing the sentiment of the progressive medical thought of the State:

*Dr. Joseph Y. Porter,
State Health Officer, Jacksonville, Fla.*

DEAR DOCTOR—I notice in the HEALTH NOTES you all have quite an article in regard to smallpox, and what will you do with it? From my experience and the protection by vaccination, it seems to me that it would be a good idea if all quarantine of smallpox patients were obliterated, and those who wished to have it were allowed to have it, and those who did not wish to have it were vaccinated and protected, which would save the State Board of Health a good deal of unnecessary work, and the State of Florida a very heavy expense. This of course is not for publication, but I thought I would give you my views in view of the fact you were asking what would we do with it?

Very respectfully,

WON'T YOU PLEASE READ?

The other day a prominent business man in one of the larger towns of the State, not so very far from Jacksonville, wrote to the State Health Officer asking "in the name of humanity and the interest of the State," if he would not do something to prevent smallpox from occurring in and around that community. His letter was promptly replied to, and the correspondence so well indicates the lack of knowledge of the subject on the one hand, notwithstanding all that has been spoken and written, and the policy of the Board in smallpox management on the other hand, that it is given in full, omitting of course signature and locality. If people will only wake up to this fact, that there is no way to control smallpox except by vaccination, the problem of wiping that disease off the face of the earth will have been solved:

DEAR SIR—I want to ask of you if there is not some disposition to be forcibly carried out by your local health officers to prevent the wide spread of smallpox. There is now, and has been continuously for a year this dreaded disease, here in the town and county and there is apparently no steps to eradicate it, or isolate it, and it becomes alarming when one has a case just across the street, with no instructions and more especially when there are a lot of children who might be involved.

I have appealed to Dr. Porter only after receiving no satisfaction from your local representative.

In the name of humanity and the interest of the State will you do something to relieve this situation?

Yours truly,

JACKSONVILLE, FLA.,

Mr.....

DEAR SIR—I have your letter of the 7th and am glad that you have written, for it gives me an opportunity to set you right on a very important matter.

Did you ever stop to think how it is that I have been visiting smallpox cases during my entire professional career, now some forty years, and have never contracted the disease? That is not a matter of chance at all; it is simply that I know how to keep from having it. Any well-informed physician knows how to keep from having smallpox. The remedy is very simple, very safe and absolutely to be relied upon. It is nothing more nor less than vaccination. If you and your family will get vaccinated it will not make any difference to you if smallpox comes across the street or if it comes into your stable or house; you will be perfectly safe. It will not make any difference to you how much is loose in the town or the county, or how unrestricted it may be at any time in the year.

No man need have smallpox that does not want it, nor on the other hand can the State Board of Health force any man to protect himself that does not choose to.

If the people across the street from you have smallpox it is because they did not heed the advice of the State Board of Health. Inquire into it for yourself and every case you will find to be in persons who have not been successfully vaccinated within recent years. Had they heeded the advice of the State Board of Health they would not have had it. If you heed it you will not get it.

Now getting down a little closer to your questions: The agent of the board can not prevent the spread of smallpox in _____ county any more than the people of that county are willing that he shall. If the people of the county want to get rid of smallpox and will give the doctor their cooperation by all getting vaccinated, then there will be no more smallpox there; but unless they do that it is absolutely impossible for him to control the situation. It can not be controlled except in that way. That does not apply to your county alone. It applies to every county in the State, to every State in the Union, to every nation on earth, for no one on earth has yet found a way of controlling smallpox except by vaccination. I am fully aware that when writing this letter you had quarantine in mind, but, my dear sir, quarantine does not prevent smallpox. It has been tried a thousand years and it has to its credit a thousand years of failure;

why should we keep it up? The most that quarantine does is to postpone the disease, and usually it does not do that much.

So far as guarding smallpox is concerned we have ceased that long ago, for the following reasons:

First of all, that we have as much smallpox when we guard as when we don't. I hope that you will read that first reason again and again.

Second—It is only a bluff game at best, for if a smallpox patient walks out, will a guard lay hold and take him back? Not usually. Will he shoot? Who has a right to give a guard authority to shoot a smallpox patient? Would you have your State engage in a bluff game of that kind?

Third—It is a very expensive procedure and the taxpayers of Florida have to foot the bills. To have guarded the smallpox patients we had last winter would cost over one thousand dollars a day, and we would have had as many cases now as we do. As a taxpayer and a citizen, are you willing that your money should be squandered in that way? Please don't pass this by lightly, but seriously consider the matter as I have put it up to you, and I shall be glad to hear from you again.

If there is any point upon which you want further information I shall be glad to furnish it.

Now, while it is a deplorable fact that we can not get rid of smallpox because people of the State will not give their cooperation as a body, yet we do have this comfort, that however much smallpox there may be in the State, we do not have to have it. We can say: "As for me and my house, we will get vaccinated, and then we will be safe."

QUARANTINE IN SCARLET FEVER

In England a child developed scarlet fever and was forthwith sent to the hospital. It stayed there eight weeks and was sent home. Within the next three days the father came down with scarlet fever. It was charged that the doctor in charge of the hospital had exercised negligence in turning the patient out so soon and damages claimed. But the court didn't see it that way and the case was dismissed.

In the course of the trial some old saws were brought up and disposed of in the ordinary way. For instance, it was claimed that a little child had brought a slipper to the shop (the man claiming the damages was a shoemaker) and had in consequence contracted scarlet fever. That a third person could transmit the disease without having it himself.

But the thing that attracted us was the fact that it was held that the disease was transmitted after the child had been in the hospital *eight weeks*. Now isn't that a contrast with what we would expect in this State. Who ever heard of a case of scarlet fever here being confined eight weeks. Maybe the disease is more severe there than here. At any rate we seldom have children confined more than three

weeks. Frequently not more than ten days. And more frequently still they are not confined at all. The disease is so mild that many cases—perhaps a majority of them—are never recognized. In such cases there is of course no confinement or attempt at confinement. They go and come at their own sweet will. And yet the disease is only very slightly prevalent here. Why doesn't it spread more? When it is so poorly *quarantined*? The discerning might be tempted to ask: *How much good does quarantine do any way?*

The C. V. Mosby Medical Book and Publishing Co. is advertising "The Latest Word on Pellagra," a book by Stewart R. Roberts.

The NOTES has not seen the book in question. In fact it is expected out about the first of January. But we confess to a little curiosity to know just what excuse a man has for writing a book on pellagra at this juncture. If he has anything new to offer, a book is not the place to offer it. And as to the old matter, with its this-theory and that-theory, anybody can have all the literature desired for the asking, for aside from the U. S. P. H. & M. H. Service publications, almost every State Board of Health has published and distributed something. In fact one of the cheap commodities to be had in these days is literature on pellagra.

But if Dr. Roberts has no new theory to exploit and the courage not to accept any theory till it is proven, and will confine himself to a judicial discussion of the disease, carefully and dispassionately separating the known from the unknown, then we forgive him and congratulate him at the same time. His book is timely.

ECHOES FROM THE HATTIESBURG MEETING OF THE SOUTHERN MEDICAL ASSOCIATION

Dr. Jackson, of Miami, was elected president, and the next meeting is to be held in Jacksonville. Let the physicians of Florida do themselves proud on the occasion.

Dr. Bass, of Tulane, has succeeded in growing the malarial parasite outside the human body. And that's important.

Dr. Hensen, of Crescent City, Fla., had an excellent paper on malaria. The doctor is a scholar and couldn't help being shocked at some things he heard during the discussion, however.

Dr. Guthrie, of New Orleans, had a paper on dietetics in typhoid fever. It was scholarly and did him credit. He finds that a liberal

diet of carbo-hydrates well chosen are not only borne well by the patient but that the patient's strength is conserved and may go through a long siege of typhoid fever without loss of weight.

The consensus of opinion was that the ladies of Hattiesburg could enter a culinary contest at the world's fair with perfect confidence.

How many remember the mink farm? It is not every place that can boast of so unique an industry, to say nothing of a Commodore Bell.

It has been suggested that the umbrella be adopted as the "coat of arms" of the Southern Medical Association, in token that it is needed in sunshine and in rain. As many as are in favor of adopting the umbrella let it be known by "the usual sign."

Dr. Freeman, of Virginia, said that the disposal of domestic waste is the most important public health problem in existence. Dr. Freeman has a way of getting at the kernel of things.

Dr. Dowling, of Louisiana, was made chairman of the new section on public health. This is a fitting tribute to Dr. Dowling's splendid work. His selection was characterized by unusual unanimity.

The modesty of the secretary-treasurer would protest against the mention of his name, but it is largely due to the assiduous labors of Dr. Seale Harris that the meeting was such a success.

Dr. Freeman observed in Atlanta once that "the cream of a meeting is the meeting of your friends." The Southern Medical Association is a very genial body.

Dr. Saunders explained to Dr. Freeman the Alabama system, but Dr. Freeman didn't seem to fully appreciate its merits.

(NOTE—The Alabama public health laws are unique in that the several county medical societies elect the county health officers, and the State Medical Association elects the State Health Officer—a kind of loose-leaf system.)

The alumnal banquet was a success for those alumni having a strong representation present, but many of us felt like a dumb dog at a midnight howl.

One of the papers promised for the next meeting of the Association is: "The Dangers of the Common Umbrella," with report of one case.

It is a genuine pleasure to see Dr. Dyer preside. You have a feeling that there is an old master at the helm.

The legics and the medics vied with each other in welcoming the Association to Hattiesburg. The lawyer surpassed in eloquence, the doctor in wit.

A certain lawyer, who is as well posted on medicine as the average doctor is on law, offers a remedy for hookworms. It is garlic.

If the NOTES wouldn't be considered presumptuous it might venture to repay the debt of gratitude by timidly suggesting a remedy for his forensic troubles. It would be hookworms.

DeLand seems bent on putting in a sewerage system. It is a beautiful little city of 3,000 population, a favorite tourist resort, the county seat of Volusia county, and an educational center, being the home of Stetson University. With all its past achievements and future promise at stake, the prevailing opinion seems to be that they can't longer afford to hazard it all on the open closet.

Now Daytona is in Volusia county too, and seems just as determined for a sewerage system.

Nor can Orlando afford to let DeLand or Daytona get ahead.

St. Augustine is like the Chinaman, whose shop was next a drug store that put up a sign, "Open all Night." Then Sing Lee put up his sign: "Me wakee, too."

The other day at a hotel in the State a fly dropped into a man's cup of water. He fished it out with his fork and proceeded with his dinner.

Do you suppose he would have if he had known all the life history of that fly? Where he was hatched, how he spent his maggothood, the food he ate, the bed he nestled his wormy head into, and after hatching the places he had visited, the things he had walked over, tasted, got his feet on and got on his feet, and flown away with—if the man had known all that do you suppose he would? If the fly had been cooked with something, say the eggs, would he have been fished out with a fork and tossed away so lightly? (And yet a cooked fly is harmless, for his germs are all killed.)

But more and more people are objecting to flies. The pressure against them is getting stronger and stronger. The Irish woman that fished the mouse out of the cream and proceeded with the churning is not considered to have committed so great an offense against public health and common decency as the one who fishes out a fly and uses the milk.

INQUIRIES ANSWERED

(Any inquiry pertaining to public health will be gladly answered in this way.)

Q.—Do you think that what is called the redbug is capable of infecting people with malaria? H. L. G., Tampa.

ANS.—No; the redbug cannot transmit malaria, at least there is no evidence to that effect. The malarial parasite is an animal organism, the adult form of which lives in a mosquito and the young form of which lives in the human being. These organisms are so sensitive to slight changes that they cannot live anywhere else. Indeed, the adult is so sensitive to change that he cannot even live in other mosquitoes than the anophelines, or to say it another way, there is enough difference between anophelines and other mosquitoes to prove fatal to the malarial parasites. Think how much greater the difference between the redbug and the mosquito and you will see at once that it would be impossible for the parasite to live in the body of the redbug.

Again: The redbug rarely or never bites a person but once in life. That alone would preclude the possibility of transmitting malaria. For if a mosquito bit only once in life he could never transmit malaria. He has to bite an infected person first to get the parasites and then he has to bite someone else to pass them on. It requires at least *two* bites for a mosquito to transmit the disease.

Our information about the redbug is not very complete. There are probably several kinds of redbugs. They certainly vary in color. We have observed them distinctly red and pale yellow. Their eyes have been observed to be hook-like in some instances and knob-like in others. All of this probably means that there are several kinds.

Redbugs are the young forms of certain members of the order Acarina, or Mites, to which order also belong ticks, lice, etc., and they are known by the name of Leptus autumnalis. Even though there are several kinds of redbugs, the name Leptus autumnalis will be retained until they are described and classified.

But the indications are that redbugs are innocent of transmitting malaria.

Q.—Isn't malaria also contracted by bathing in fresh or brackish water? H. L. G., Tampa.

ANS.—No. The malarial parasite cannot live in water, whether fresh or brackish. It can only live in the Anopheline mosquitoes, and in the human being. What we might call the adult forms of the malarial parasite live in the mosquito, and the young forms in the human

being. The mosquito is called the *definitive* host and the human being the *intermediate* host. The parasite is passed directly from the definitive host to the intermediate host and *vice versa*. It quickly dies in air or water or anything but its proper host.

In New York, according to the *Journal of the American Medical Association*, "A minimum of six weeks' quarantine will be established" in infantile paralysis.

The bacteriologist has shown us that there is something in the nose of a child suffering from infantile paralysis that can be injected into a monkey and symptoms of the disease produced. Therefore the disease is contagious and must be quarantined.

The epidemiologist has shown that it is a rare thing for more than one child in a family to have the disease, even where no quarantine protection (?) is given. Which would indicate that the disease is not contagious. If the health officer is to be guided by the bacteriological findings, he must *quarantine*. But if he is guided by the epidemiological findings he must not quarantine.

Some health officers are governed more by the one, some by the other, hence some quarantine and some do not. The results are, so far as we are able to judge, about the same, whether we quarantine or do not quarantine.

TYPHOID IN THE UNITED STATES AND ABROAD

(*Death Rate per 100,000 Population.*)

Switzerland	3.8
Germany	4.7
Netherlands	5.4
England and Wales	6.0

Now get the smelling salts and read the death rate in the United States: Deaths, per 100,000 people, 22.0.

Don't you think our sewage had better be looked after a little better? For that is where the trouble lies. Even flies are helpless to transmit typhoid fever where sewage is properly disposed of.

THE HOME PROPHET SUSTAINED

One of the many peculiar inconsistencies of the human family is the readiness with which the whisperings of strangers is listened to in preference to words of wisdom from friends and home folks. Let some one come into a small community, and with great pomp and high-sounding phrases, tell of the wonderful cures he has made and the still more wonderful remedies which he will dispose of for a "mere song" because of his love for humanity, and he will gather around him a crowd of eager and attentive hearers. "The prophet is no prophet in his own country and among his own kindred" seems to be a settled proposition. Now the NOTES intends to take advantage of this weakness of human-kind and present to its readers, and to the *thinking people* of Florida, some statements in regard to preventive medicine, which men in other parts of the country have made in regard to the control of smallpox by other means except that of vaccination.

The American Medical Association has in its organization a Department of Preventive Medicine, and at the recent meeting at Los Angeles, California, a committee from this section made a report, and this report is so interesting and so entirely in line with what the NOTES, voicing the State Board of Health of Florida, has so often insisted upon and advocated, that the report in part is given in this and a subsequent number, together with the discussion on the subject which followed the report of the committee. Maybe you, Mr. Reader, have thought that the NOTES has overcolored the danger and exaggerated the importance of vaccination as the only preventive against smallpox. See what Messrs. Spalding and Bracken say on the subject. And please remember that the NOTES and these doctors have not exchanged views on these points:

THE CAMPAIGN AGAINST HOOKWORM DISEASE

During the months of November and December Dr. C. T. Young, assistant State Health Officer, carried the campaign against hookworm disease into Lake and Lafayette counties. The schools were inspected and the usual plans of the system carried out. The co-operation given the State Board of Health in this work by local physicians was especially valuable in Lafayette county, and Dr. Young desires to particularly express appreciation for the very generous assistance given him by Doctors Anderson, Green and O'Quinn, of Mayo. At all times in the work in and around Mayo one or more of these physicians ac-

accompanied Dr. Young during his inspections of the different schools. The interest displayed and volume of work that had been accomplished in Lafayette county, previous to Dr. Young's visit, in the handling of hookworm disease, was greater than had been encountered elsewhere in the State, and splendid headway had already been made.

Dr. E. W. Diggett, assistant State Health Officer, who now resides at Tallahassee, has established a dispensary for the free treatment of indigent sufferers of hookworm disease, and is fully equipped to do his own microscopic work.

REPORT OF COMMITTEE ON METHODS OF CONTROL OF SMALLPOX*

I. CONTROL OF SMALLPOX IN A CITY WITH A MILLION INHABITANTS.

Herman Spalding, M. D., Chief of the Bureau of Contagious Diseases, Chicago Department of Health.

The one agency, vaccination, is sufficient to absolutely prevent smallpox in cities large or small if this remedy is universally and intelligently applied. But there are always those in a community who oppose anything which was not created by themselves. I have never known an antivaccinationist who has had any experience with smallpox. One case in the family of an antivaccinationist has always cured him of his antivaccination views.

A smallpox hospital is a reflection on the intelligence of some of the citizens of a city. The burden of supporting such a hospital should fall on those who oppose vaccination. It is a needless expense and those who are careful to keep themselves immune from smallpox by vaccination should not be taxed to support hospitals for the care of a disease which is absolutely preventable by a universally known remedy.

The same methods for preventing smallpox in large cities are applicable to small cities, but large cities present difficulties not met with in small cities. The constant influx of cases from the surrounding country menaces the large city to a greater extent than the small city. The areas of congested population, the numerous centers of foreign-speaking population in large cities who mistrust our ways makes it more difficult to control disease among them than is the case where but few people are found. In large cities there is more opportunity for concealing cases of smallpox. There is less respect for law and the rights of others in the large city. One of the greatest obstacles in a large city is the fact that the per capita tax for contagious diseases is lower than in small cities. A small town will spend one to five dollars per capita in a few months to suppress an epidemic of a contagious disease, while a large city like Chicago would never

*Read in the Section on Preventive Medicine and Public Health of the American Medical Association, at the Sixty-second Annual Session, held at Los Angeles, June, 1911. *Jour. Amer. Med. Assn.*, Oct. 14, 1911, v. lvii, pp. 1279-1282.

think of spending even fifty cents per capita to keep contagious diseases out of the city. By expending large sums of money, a small city can secure vaccination of nearly all and get smallpox under control in a few months, even after the disease has been introduced, but it takes a large sum of money to do it.

In a large city, if vaccination is neglected until smallpox is introduced at numerous points, the chances of preventing an epidemic become small. When an epidemic is well started in a large city full of susceptibles no effort that is likely to be put forth will eradicate the disease in less than two years. If everybody were vaccinated the disease would cease at once. This seems a simple matter, but in a city of two millions, if we were to set one million the task of vaccinating the other million, the task would not be completed in a year. To vaccinate and keep vaccinated a large population requires persistent and aggressive work all the time.

The decisions of the courts that say vaccination can be enforced only in the presence of an epidemic, is not based on the true nature of epidemics of smallpox in relation to vaccination. The requirements are that a community must be made and kept immune if epidemics of smallpox are to be avoided. It is too late to prevent disaster if we wait until smallpox is present. The community must be kept immune from this disease and there is no way to bring about this result except by compulsory vaccination. To wait until smallpox is present before enforcing vaccination is as foolish as it would be to wait until a building is on fire before enforcing the building ordinance which requires fire-proofing. In the meantime, when smallpox comes every case must be hospitalized and wholesale vaccination begun.

(To be continued in the February issue.)

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Pensacola, City Hall.

Sent to any address in the State for the asking.
If you receive it without asking, it means that someone else has requested it
for you.

When you change your address drop us a card.

When giving change of address, give both the old and the new.

Anything you want to know about the public health we will try to tell you.

Any information you want about communicable diseases of domestic animals
we will help you to get.

While the vaccine discovery was progressive, the joy I felt at the prospect
before me of being the instrument destined to take away from the world one of
its greatest calamities, blended with the fond hope of enjoying independence and
domestic peace and happiness was often so excessive that, in pursuing my fa-
vorite subject among the meadows, I have sometimes found myself in a kind of
reverie. It is pleasant for me to recollect that those reflections always ended in
devout acknowledgments to that Being from whom this and all other mercies
flow.—Edward Jenner.

SMALLPOX OUTLOOK

What is the smallpox outlook in the State? Now just what has it been for, lo, these ten—twenty years? Has anything happened to change its complexion? Not that I am aware of. Then the outlook is just what it has been. The thing that will come is just the thing that has been coming these years. That is to say, case after case, outbreak after outbreak, panic after panic, first here, then there; sometimes a little nearer, sometimes a little farther; sometimes quickly checked, sometimes slow and tedious; sometimes causing little alarm, sometimes setting the population wild; sometimes leaving scars, sometimes leaving death in its track, often neither; sometimes among negroes, sometimes among white people; always among the unvaccinated, never among the vaccinated—these are the things we have been having these years, and the things we will continue to have as long as we look to anything but vaccination to stop it. We might just as well make up our minds to grin and bear it. An old stock-raiser in South Georgia used to break his little mules to harness by hitching them up one at a time with a large mule to a large wagon. The little one would sometimes rear and snort, but the wise old stockman knew that the old mule would hold him. He would placidly encourage the little fellow by saying: "Go on, go on, you'll get used to it!"

Today's smallpox record for instance: Sixteen cases reported from one town; three from another where a young lady with it has been working in a large department store; one from another tourist place; twelve where he came from; two in a certain jail; and one taken off the train. Doesn't that look like we'll get used to it?

PELLAGRA

Lombroso was an Italian. He founded a new theory as to the cause of pellagra. If he didn't start it himself he took it up from some obscure place and gave it a high seat in the synagogue and made people bow to it. That was the cornbread theory. So Lombroso is accredited with heading the "cornbread" school of pellagra. A good man this. Lombroso. He died about a year ago and the world mourned the loss of one of its masters in medicine. He wrote a great deal about pellagra and how it was caused by spoiled maize. He caught the ear of the French. And then a Frenchman by the name of Marie wrote a book on pellagra. It was a condensation of the elaborate writings of Lombroso. And he caught the ear of the Americans. And two Americans, Drs. Lavinder and Babcock, translated the Frenchman's book into

English. And for awhile it seemed that pellagra couldn't be caused in any other way than by spoiled corn. The tide of popular opinion had set, and on it rolled, carrying all before it. Sometimes a mild protest could be heard, but it was soon drowned in the din. Sometimes a doubting Thomas would ask impertinent questions, like "Why haven't we had it in America, the home of the corn, all these years that we have been using cornbread?" But one look from the cornbreadists was enough to send him like Montmorency when he encountered the cat.

But great and good men may make mistakes. Robert Koch, who was both, doubted the inter-transmissibility of human and bovine tuberculosis. Possibly Lombroso was mistaken. Possibly his disciples were. It may be that some other will arise who will be able to throw more light on the subject than has been thrown heretofore. Indeed, one English physician, by the name of Sambon, has already advanced a theory, which has much evidence to support it. This theory assumes that the sandfly is the intermediate host and that pellagra is transmitted something like malaria or yellow fever, only by a sandfly instead of a mosquito. And this theory of Sambon is being seriously considered by the foremost students of the world. It is in a way unfortunate that this work of Marie should have been so delayed in coming out, for it is almost out of date ere it leaves the press. But on the other hand it may be fortunate, for it will tend to keep the cornbread error, if it be an error, from getting too widely and deeply rooted. The chief value of the work, as I conceive it, is that it is a compend of information on the disease, though that has to be used with discrimination, as it is an elaborated argument for corn as the etiological factor in pellagra.

A certain doctor in Ohio says: "Blind staggers in the animal is the same as pellagra in the human, caused in both by eating mouldy corn." It is hoped that he knows the cause of blind staggers, but the NOTES would timidly suggest that he might be a little previous as to the cause of pellagra.

WANDERING REMARKS

The hookworm crusade in Florida has been partially suspended to fight smallpox. Not that smallpox is so important a disease, for it is not. To show you that it is not, we have had only eleven hundred cases and nine deaths from it in the entire State in the year. But we have fifty thousand cases of hookworms and many deaths every year. Then

smallpox is completely preventable. Hookworms are nearly so, though not entirely. Smallpox has been discussed a thousand years—hookworms about ten years. We have known how to prevent smallpox a century—we are just learning how to prevent hookworms. Smallpox, it is true, can't be cured, while hookworm can; but it can, as before said, be prevented, which is infinitely better than cure. Then, in the name of common sense, why do we let up on the greater and more important disease to fight the lesser? I had not started to discuss smallpox but hookworms. The crusade is not stopped—as Bob Burdette would say, "not lost but gone behind something."

In fact the crusade against hookworms can't be stopped now. The time when it could has past. It has been set in motion, and it continues to move, gathering momentum as it goes, till at length it will attain a state of equilibrium. The State Board of Health has started it, but it couldn't stop it if it tried. A man can sometimes start a panic simply by crying "fire," but he can't stop the panic in the face of the fire. This hookworm work would go on if the State Board of Health were wiped out of existence. Just this morning a letter was received from one of the more important educational institutions of the State telling how the hookworm was described to the students and how they were then invited to submit specimens for examination, and how forty of them responded, and how twelve were found positive and took treatment.

The Board knew nothing of this till it was past. The Board paid for treatment of 600 cases last year—how many thousand were treated that the Board has never heard of can only be conjectured. The Board can furnish the ammunition—the people must fight the battle. And they are fighting it to a man. A wide and extensive acquaintance in the State—a corps of workers covering it minutely, has failed to bring to light in several months a single physician who is not recognizing and treating hookworms. There may be such—we would not say there are none, but we know of none, and our extensive acquaintance assures us that if there are such, they are few.

A feeble wail was heard the other day in the press about the condition of hookworm sufferers being starved and that being the cause of their condition. It sounded like one speaking from the dead. How vividly it calls to the mind of every Southern physician who has been practicing ten years his futile attempts to woo those little sufferers to health by nutritious diet, and tonics! How many of them he has seen laid away—literally starved on the best

diet that money could buy! I recall two children that were admitted to the hospital when I was interne. That was nine years ago. They were brother and sister, about eight and ten years old. And I remember the iron that I used to give them—the milk and egg diet, and yet the little sufferers kept sinking. I called the visiting physician to my assistance. But it was no use. The children had plenty of food—the best food—predigested food—but they couldn't assimilate it. Day by day their little pinched countenances grew more pinched—their little pale faces grew more pale—their little protruding abdomens protruded more and more; until finally the eyes were swollen in the morning, and then the whole face and the dropsy became general, and then the hearse took one and then the other. Preach food to me, ye gods! It was not an insufficiency of food, but a superfluity of worms. It was not milk and eggs they needed—it was thymol.

That was a long time ago—we know better now. Still here and there is one who hates to be dislodged from his former antagonistic position. They die hard. When the law of mosquito transmission of malaria and yellow fever was discovered, some said it was not so—could not be so, and held out for years and years. At last when they found themselves more and more alone, they began to recede—began to say the mosquito is only one of the ways. So in this. But that, too, will pass. No one denies that good food is essential to good health, and other things being equal those having poor food or insufficient quantity, will suffer most from the disease, just as those having poor clothes will suffer most from the cold. Yes, that's the proper figure—just as well to say the cold doesn't make people suffer—it is lack of sufficient clothes. The cases are fairly analogous.

However, there is nothing to quarrel about now. The mosquito is the only means of transmission of malaria and yellow fever, and everybody recognizes it. Or if there are some few that believe otherwise they don't dare open up about it except in the most private way when they can give vent to their feelings without being laughed at.

A certain little boy had scarlet fever. He said: "Daddy, can't you vaccinate against scarlet fever?" To which his father replied that he could not. Though the little fellow was not suffering from the disease, he was tired of the confinement. He sighed and said to himself: "I am vaccinated against smallpox, and against typhoid fever, and I had tetanus antitoxin when I stuck a nail in my foot. Daddy, I wish you could vaccinate against all the diseases." Ah, little boy, that wish has been made many times. Many a time has it wrung a mother's

heart, that vaccination even against smallpox was delayed till it was too late. Many a rain has drenched a bleak little grave while a mother's tears drenched a vacant little bed, that vaccination against smallpox would have prevented. Blessed is the little boy whose parents give him protection against all those treacherous diseases possible.

This morning I was asked about German measles in town. I replied I had seen none. But that I had a case of scarlet fever at my house. The conversation led me to relate the case in detail. The listener was a man of more than ordinary intelligence. He is not a physician. How much experience he has had with scarlet fever I do not know, but presume not a great deal. He assured me from the symptoms described that it was not scarlet fever.

That happens, by the way, every day. Half a dozen people that have not seen the case—only heard about it—are ready to testify that the child does not have scarlet fever. To the average layman nothing is easier than to diagnose scarlet fever, or diphtheria, or measles, or smallpox. And then the average layman will accept the diagnosis of the other average layman sooner than he will that of the physician who puts years of study to it, and adds to that years of experience. In this case two physicians, with ripe experience, found it difficult to determine whether it was scarlet fever, with the case and its full history at hand. But a layman, without any help, and without seeing the case, can make a diagnosis without the slightest difficulty. I often think of what mistakes have been made in the making of doctors. Why didn't some of the wise laymen study medicine—what couldn't they have done? I have heard that in China you place a handkerchief over the patient's face, and take it to the doctor and he makes a diagnosis. These Chinese stunts at diagnosis are not in it. What layman needs a handkerchief to diagnose scarlet fever?

The other day a card was received from a certain citizen, asking for some information on ground-itch, but stating among other things that "The crackers know more about ground-itch than the doctors do?" Scarlet fever is not the only disease that the doctors are not posted on.

A mother brought a sweet little girl of five into the office. She wore glasses, even at that tender age. But, alas! an impenetrable darkness had veiled those little eyes forever! Ah, little blind child! Two drops of simple medicine at the RIGHT TIME and thou wouldest today

be romping on the green as other children romp! The sky overhead, and moon and stars, the bird on the bough filling the air with animated music, the violet barely lifting its timid head above the sod, would not all look alike to thee! When morning calls thy little form to life, thy lips to speak, thy arms to fond embrace, thine eyes would also hither come from night to meet thy mother's own. Poor caged bird! Thou wouldest not beat thy breast against the wires in vain!

SCARLET FEVER

There is, at the present time, a case of scarlet fever in the family of one of the attaches of the State Board of Health, that has two or three instructive phases.

The child, a boy of six, well grown and in good health, on Friday night complained that his throat was a little sore. Examination showed nothing but a little reddening. Saturday it had disappeared and the matter was forgotten. The boy romped and played through the day as usual. At bedtime it was observed that his face was flushed. When he went to take his bath it was found that his body was covered with a scarlet eruption. Suspecting scarlet fever, the child was placed in a room to himself. Sunday morning the rash had faded, though it was faintly visible here and there. No throat symptoms. Temperature 99°. The only symptom that was pronounced at this time was hunger. He was kept in bed all day. But he was so full of life that he would occasionally get to jumping and rolling and kicking for the fun of it. At such times his face would flush more than usual, and the scarlet rash would come out enough to be seen. Monday morning about the same suggestion of eruption that had existed the day before. No throat symptoms. There was slight eruption on hard palate. Asked how he felt, he answered: "All right I suppose. I haven't thought about my feelings." At this time a diagnosis of scarlet fever was made.

The first point of special interest is the unusual mildness of it. Had the case occurred in a less observant family it would have been passed by as of no consequence, and the child would never have stayed in doors a minute from it. Perhaps he would have gone to school, or to Sunday School, or down town, or to a children's party, or on a trip—anywhere occasion called for. It will be seen how he would have exposed others indiscriminately and without the knowledge of any one. And thus would it have spread, and many would be wondering a week hence, just as we are wondering about him now—where did he get it?

And that is the second item of interest. He is not known to have been exposed. At home he has the privilege of a large yard, but not of the street. He has no playmates visit him. No one in the house is known to have seen a case of scarlet fever in several weeks to say the least. None is known to have existed in the family of the washer-woman. But,

Just a week before he was taken ill, he went down town one afternoon with his mother. They went into two or three jewelry stores and into one department store. They went and came on the cars. It may be that he came in contact with some other child that had a slight sore throat and that had been forgotten about. No one will ever know. But the fact remains he got scarlet fever.

There is a third point that is being emphasized a great deal now, and that is "contact infection." That is to say scarlet fever is not considered air-borne but that it is borne only by contact. Dr. Guiteras emphasizes this very strongly. He quotes a certain French physician that declares he can treat scarlet fever in a ward with other patients with safety if he only observes certain precautions. He does it by first having a coarse wire cage set over the bed of the scarlet fever patient. That is merely to mark the "dead-line," so to speak. No one enters this cage except the nurse and physician and they put on a gown on entering and take it off on coming out and wash the hands also with a disinfectant solution. In other words strict surgical precautions are observed.

In the home management of this case there is no wire cage but a "dead-line" is just as effectively drawn as if there were. The bed is moved away from the wall so as to give room to pass round it. The nursing table is set close to the bed. There is a small rug on the floor beside the bed. The bed, and table, and rug, constitute the infected territory. The rest of the room is not considered infected. Nothing goes into the infected territory and comes out without disinfection. When the nurse, who is the mother in this case, goes to fix the bed, she dons a nursing apron, which covers her from head to foot, protecting her clothes entirely. Upon leaving she takes this off and hangs it upon the foot of the bed, infected side out, and washes her hands in solution of bichloride of mercury which is set ready. No linen is taken out of infected territory without first being immersed in water, and it is immediately boiled. In this way it is believed the purpose of sanitation is fulfilled as completely as possible, that is to say, the maximum of protection is given with the minimum of inconvenience.

A very important item in the management of communicable disease is the general training the child has. One that is rebellious and uncontrollable when well will be more so when sick, and nothing will complicate the management of a communicable disease more than inability to control the patient.

The quotation this month, which as usual appears on the title page, and the letter from Thomas Jefferson to Edward Jenner, are reproduced from the August, 1910, issue of the California State Board of Health Monthly Bulletin, which was devoted entirely to a discussion of vaccination.

THOMAS JEFFERSON'S LETTER TO EDWARD JENNER

MONTICELLO, VA., May 14, 1806.

SIR: I have received a copy of the evidence at large, respecting the discovery of the vaccine inoculation, which you have been pleased to send me, and for which I return you many thanks. Having been among the early converts of this part of the globe to its efficacy I took an early part in recommending it to my countrymen. I avail myself of this occasion to render you my portion of the tribute and gratitude due to you from the whole human family. Medicine has never before produced any single improvement of such utility. Harvey's discovery of the circulation of the blood was a beautiful addition to our knowledge of the ancient economy; but on a review of the practice of medicine before and since that epoch, I do not see any great amelioration which has been derived from that discovery. You have erased from the calendar of human afflictions one of its greatest. Yours is the comfortable reflection that mankind can never forget that you have lived; future nations will know by history only that the loathsome smallpox has existed, and by you has been extirpated. Accept the most fervent wishes for your health and happiness, and assurance of the greatest respect and consideration.

THOS. JEFFERSON.

BILLBOARDS WILL TEACH TUBERCULOSIS PREVENTION

20,000 Colored Posters to be Displayed in Next Three Months—

Value \$100,000

During the next three months, the billboards of the United States will display 20,000 educational posters on tuberculosis, according to an announcement made today by the National Association for the Study and Prevention of Tuberculosis.

This will conclude the campaign begun a year ago, when the National Billposters' Association donated free space to the tuberculosis

cause, the Poster Printers' Association offered free printing, and nine paper manufacturers gave the paper for the posters. The combined value of these several donations for this three-month campaign is nearly \$100,000.

The posters are in six different designs and are all printed in three colors. They are 7 feet wide and 9 feet high. Already nearly 2,500 of these posters have been hung on the billboards of 46 different cities, and it is planned to distribute 20,000 before April 1st in over 400 towns and cities. Any anti-tuberculosis society in the United States may receive free of charge, except for transportation, as many of these posters as can be hung on the boards in its territory. The National Association with the Tuberculosis Committee of the National Billposters and Distributors are conducting the campaign.

The posters show in graphic form how fresh air, good food, and rest cure tuberculosis; how bad air, overwork, and closed windows lead to consumption; and how the careless consumptive menaces the health of his family by spitting on the floor.

DIPHTHERIA

Helps in the Management of Diphtheria Recommended by the State Board of Health

Diphtheria is due to a very small vegetable, known as a germ. These plants or germs don't grow in ordinary soil. But they grow well where conditions suit them.

They grow best in the throat of human beings—particularly children. When they grow in a child's throat they produce the disease we know as diphtheria.

If by any accident, some of these germs get transferred from the throat of a diphtheria case to that of a well child, they begin to grow and produce another case of diphtheria.

Good management of diphtheria has for its object the prevention of other cases. This is accomplished in two ways: 1st, by preventing any germs from the sick getting to the well; and 2d, by immunizing the well so they will not develop diphtheria even if they do happen to get a few germs.

A case of diphtheria in a family of children should therefore be managed as follows:

1st. As soon as a child complains of sore throat the family physician should be called. It may be diphtheria. If it is:

2d. The sick child should have a large dose of antitoxin at once. The doctor will attend to this.

3d. Then the other children in the house should have immunizing doses of antitoxin. The doctor will attend to this also.

4th. The sick child should then be kept in a room to itself, and should be seen by as few people as possible—if only the doctor and nurse so much the better.

5th. All carpets, rugs, etc., should early be removed from the sick room.

6th. The doctor's advice should be carried out in detail.

7th. If the mother acts in the capacity of nurse, she should not turn this duty over to anyone else, and should mingle as little as possible with others.

8th. All eating utensils used by the patient should be taken from the sick room in a dishpan and have boiling water poured over them and be left to stand fifteen or twenty minutes.

9th. All bed linen, night gowns, and washables of every kind should be removed from the sick room in a zinc pail and be covered with boiling water, or better still, set on the stove and allowed to boil fifteen minutes.

10th. When the case is dismissed the room should be carefully cleaned—disinfected by the local Board of Health.

Remember:

That diphtheria antitoxin cures diphtheria if administered early, hence the importance of calling the family physician early in the disease.

Remember:

That diphtheria antitoxin prevents diphtheria if given in immunizing doses, just as vaccination prevents smallpox. But the immunity lasts only a short while—two to four weeks. This, however, gives time to get the patient up.

The State Board of Health will pay for antitoxin used with indigent patients.

When diphtheria is seen early, and well managed, there is rarely a death from it, and only one case to the family.

When managed as above outlined, it is not necessary to apply quarantine restrictions to anyone but the patient and nurse. That is to say, the well children should not be excluded from school, provided, of course, that they are excluded from the sick room.

JUST A JINGLE

A walk of a mile in the open air
 Will save you more than your nickel fare,
 For in God's outdoors the air is good;
 It will clear your brain and redden your blood
 And bring you more vigor and health by far
 Than you can possibly get in any old car.

—*Sanitary Bulletin Department of Health, City of Chicago.*

LIFE'S SEESAW

Gin ye find a heart that's weary,
 And that needs a brither's hand,
 Dinna thou turn from it, dearie;
 Thou maun help thy fellowman.
 Thou, too, hast a hidden heartache,
 Sacred from all mortal ken,
 And because of thine own grief's sake
 Thou maun feel for ithier men.

In this world o' seesaw, dearie,
 Grief goes up and joy comes down,
 Brows that catch the sunshine cheerie
 May tomorrow wear a frown.
 Bleak December, dull and dreary,
 Follows on the heels of May.
 Give thy trust unstinted, dearie,
 Thou mayst need a friend some day.

—*"Heart Throbs," in the National Magazine for December.*

VENTILATION

"Nothing is more important than to keep out of badly ventilated places. A badly ventilated place in which many people are crowded is the worst place, especially if it is warm and damp. Did you ever go out of the snow into a hot waiting-room jammed with people and with all the windows closed? The next time you find yourself in a place like that, get out. Get where the wind can blow the air from around you. Then—avoid warm, close, damp, crowded places.

"The next time you go into a place where the air is still and quiet, where no drafts are felt, notice how quickly you become heavy, loggy, yawny, and then get a headache. On the other hand, a breeze in summer or winter stimulates you; does it not? Drafts are invigorating. Lack of drafts is depressing. A cold bath may not be so comfortable as a hot bath, but it is much healthier for the average person. Draftier places are healthier than places without drafts. There is less

pneumonia in them. Some one says to chill your feet or to wet your feet will give you cold. Keep tab on these points. Every time your feet get cold mark it down and see how often you get a 'bad cold.' Do the same things every time your feet get wet. Keep the same tab on your colds and see whether you think cold or wet feet has anything to do with 'taking cold.'

"You will find that your ideas about cold feet, or wet feet, or drafts, have been more wrong than right.

"Then—do not dodge drafts; do not avoid fresh air; be temperate; keep your body right, and then if you crowd up against your neighbor on car, platform or elsewhere, do it in the open, blowing air where you can't hurt him and he can't harm you."—*Chicago, Sanitary Bulletin, Department of Health.*

SHOULD SMALLPOX BE QUARANTINED?

"Here, I wish to go on record as opposed to the present method of handling smallpox. I am opposed to the quarantine of smallpox, and my disapproval of this practice rests upon the following reasons:

"First—Because quarantine gives a false sense of security, thereby tempting many who would otherwise be vaccinated to forego this certain protection. Quarantine in this way favors the substitution of an uncertain for a certain protection. Example: A victim of smallpox turns up in the town of X. The first thought in many instances is to conceal the case; if this fails, it is conspicuously stated that the disease is safely quarantined. In either case, the unvaccinated population, either ignorant of the existence of the disease, or relying upon the quarantine, take no precaution. The fuel upon which the disease blazes into an epidemic remains without protection. On the other hand, suppose that when the case turns up in X it is boldly announced and placarded. It is at the same time understood that no quarantine will be established; that the disease may tomorrow be met in the post-office, courthouse, market place, school, church or other public place; then nearly everybody will be vaccinated, and there will be but little smallpox fuel to keep the disease smoldering.

"Second—I said 'nearly everybody' would be vaccinated. Who, then, will make the small minority? Two classes of people: The first class are those whose sense of responsibility for community health is such that they are more influenced by the anticipated slight personal discomfort of a sore arm than they are influenced by considerations of the public weal. The second class are our esteemed friends who do

not believe in the protective power of vaccination. To these science is dumb and experience is a liar. And yet to protect these two classes, we quarantine. To protect them, when they alone last year spread the disease all over our fair State and put the State to an expense of \$40,000 to \$50,000. Do these civic irresponsibles deserve an altogether unnecessary expenditure of \$50,000 by those who have discharged their civic obligation in the matter of smallpox? My answer is, No.

"Third—Minnesota and South Carolina have both abolished quarantine in smallpox and the result has been highly satisfactory to both States. Their experience indicates that there are fewer cases without quarantine than with it. Minnesota, in 1907, when she quarantined the disease, had 1,535 cases; the next year, without quarantine, there were 473 cases, and in 1909 there were only 269."—*Extract from the 1909 annual report of the Secretary of the State Board of Health of North Carolina, published in The Bulletin.*

DANGERS EXAGGERATED

"Mr. Bonner had tried to make out that vaccination was fraught with great danger. Even if vaccination could be proved to be a really dangerous operation, that would not affect the argument as to its efficacy in preventing and mitigating smallpox. The alleged dangers had been grossly exaggerated, and he (Dr. Drury) had exposed many of the fables of the anti-vaccinators, and shown them to be baseless fabrications or gross exaggerations. Some of these fables had appeared in the *Vaccination Inquirer*. 'I don't believe in vaccination,' said a man to his friend. 'My nephew died two days after he was vaccinated.' 'From the effects of it?' asked his friend. 'No, he was run over by a train,' was the reply. That was an American yarn, but it illustrated the want of relationship between cause and effect in many of the allegations against vaccination.

"In Halifax, during a number of years of great neglect of vaccination, a very useful lesson of correction had been taught to hundreds of parents who imagined their first child had been injured and skin disease introduced by vaccination. 'Never again,' said many of them, and in some cases photographs were taken by local anti-vaccinators. What has happened since? Other children had been born in the same family, vaccination had been rejected, and yet later children had suffered from precisely the same condition (only worse in some of the cases) as had afflicted the vaccinated first born. He had been asked to vaccinate children in a number of such families during recent years,

the parents having abandoned their former opinion. The same applied to certain joint affections and numerous other diseases alleged to be caused by vaccination."—*The Medical Officer, England, November 19, 1910.*

More than 1,100 British medical officers of health had signed a manifesto saying that while they gave due weight to the value of sanitation they believed the only trustworthy protection known against smallpox was vaccination and revaccination. These medical officers of health have no pecuniary interest in vaccination. * * *

Dr. Drury referred to the kind of isolation practised in Germany where smallpox cases were treated in the general hospitals, the vaccination and revaccination of the nurses, attendants and patients being relied upon as sufficient protection.—*The Medical Officer, England, November 19, 1910.*

NATIONAL TUBERCULOSIS DAY ON APRIL 30

**Churches Will Fight Consumption or Hope to Enlist
33,000,000 Communicants**

April 30th has been set aside this year as "Tuberculosis Day," and will be observed in 200,000 churches in the country in a manner similar to that of "Tuberculosis Sunday" in 1910, when over 40,000 sermons were preached on the prevention of consumption. In this first official announcement of the occasion made by the National Association for the Study and Prevention of Tuberculosis, the leaders of the movement state that they hope to enlist all of the 33,000,000 church members in the country.

In one respect Tuberculosis Day will differ from Tuberculosis Sunday of 1910. Instead of requesting the churches to give to the tuberculosis cause a special Sunday service, the National Association is going to ask this year that meetings, at which the subject of tuberculosis and its prevention can be discussed, be held on Sunday, April 30th, or on any other day near that date, either in the week preceding or the week following. "What we want," says Dr. Livingston Farrand, Executive Secretary of the National Association for the Study and Prevention of Tuberculosis, in a report on this movement, "is to have this whole subject of tuberculosis discussed in all of the 200,000 churches of the United States at as nearly the same time as possible.

This does not mean that a stated service must be given over to this work, though that might be desirable, but that any minister, or other authority whom he may invite, can present the problem to his congregation before or after his regular service, or on any day within the week preceding or following April 30th."

The National Association is planning to gather statistics from thousands of ministers, showing how serious a problem tuberculosis is to every church. These figures will show among other things the number of deaths last year from tuberculosis in the church congregation, and the ways in which the pastors are called on to minister to sufferers from this disease. It is planned also to issue millions of circulars and pamphlets on the prevention of tuberculosis, both from the national office and from the headquarters of the 450 anti-tuberculosis associations which will cooperate in the movement.

THE ANTI-VACCINATIONISTS' STANDPOINT

(Extracts from article by Dr. Saxton Pope, Watsonville, Cal., published in the Monthly Bulletin of the California State Board of Health for August, 1910.)

"While it is true that most of the opponents of vaccination are intelligent persons, and some are men of distinction, it is also true that none of them is trained in biologic science. It is frequently claimed that doctors disagree regarding vaccination, but this is not so. All men of modern medical training know that vaccination not only has saved more human lives than any other discovery, but that it is the foundation of modern medicine. It started the production of artificial immunity through antitoxic serums, bacterial vaccines and similar agents. The theory and principles of vaccination underlie the whole scheme of the prophylaxis and cure of contagious and infectious diseases. The prevention or cure of such diseases as plague, diphtheria, tetanus, cerebro-spinal meningitis and typhoid fever depends upon vaccine theories. The statistics quoted by the anti-vaccinationists are selected in a strange way, and at times are used illegitimately. And where authorities are quoted to damn the procedure, these men generally are dead and buried many years. No man who has attained any eminence in medicine in modern times can be quoted against vaccination."

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When giving change of address, give both the old and the new.
Anything you want to know about the public health we will try to tell you.
Any information you want about communicable diseases of domestic animals
we will help you to get.

*The individual that is successfully vaccinated is as safe against smallpox,
as an asbestos house against fire.*

A WORD ABOUT VACCINATION

There is a popular belief, based, however, on false conclusions, that a large scar on the arm or leg as a sequence of the vaccination act is protective and is ample evidence of successful vaccination. The NOTES wishes to say to its readers and to the people of Florida generally, that a large scar is evidence only of a brutal scarification which through some cause, may be negligence as to cleanliness on the part of the person scarified, or from some untoward source, may have become infected by bacteria of the air, converting a simple operation into an ulcerated surface destructive alike to tissue and probably to the protective principle which is the factor of vaccine. On this account instances are cited where vaccinated persons (?) are said to have been stricken after exposure to smallpox, and thus the anti-vaccinationists claim to have scored a point. It may be laid down as an aphorism of vaccination that a scar which has not a star-shaped appearance (stellated, it is called) "is no good" and should not be accepted as proof of a successful vaccination. Remember, then, that a large irregular-shaped scar is not to be taken as evidence of a successful vaccination. It is greatly in evidence of some one's ignorance of the art of vaccinating. There is neither sense nor good reason, which, by the way, is good sense, that a vaccination scar should be larger in size than an old three-cent piece is in diameter—nor so large. A scarification of about the size of a large pin's head with the virus well rubbed in is capable of full protection. After a few minutes' drying the scarified spot should be protected by absorbent cotton held in place by a narrow strip of rubber adhesive plaster, and let alone for several days. The scabs when formed should be kept intact. Nothing more is needed. Place no dependence of immunity to smallpox on large scars, said to be vaccination. They are delusions of faith and a snare for some one to catch smallpox when exposed to that disease.

THE VALUE OF TERMINAL DISINFECTION

The following article by Dr. Chas. V. Chapin, Superintendent of Health, Providence, R. I., taken bodily from the *Journal of the American Public Health Association* for January, 1911, so fully and so conclusively represents the trend of opinion with reference to terminal disinfection that it would seem an injustice to abstract it or otherwise mutilate it. It is accordingly given in Dr. Chapin's own words and is heartily commended to the careful consideration of any person interested in public health:

Terminal disinfection is a matter the importance of which is perhaps best emphasized by its cost. The following shows the expense of disinfection for five Eastern cities for the year 1908:

Boston	\$20,123.49
New York	55,369.41
Philadelphia	24,115.75
Baltimore	6,603.78
Washington	5,786.00

The value of such an expenditure ought to be carefully considered, and, as has been urged by Rickards before this association, we ought again to study the efficiency of the methods and the necessity for the procedure.

Several considerations have led to a questioning of the importance of terminal disinfection. The first in point of time was the fact that the introduction of the procedure, and an increasing rigor in its application, and increased efficiency in methods, was not followed by a decrease in the prevalence of scarlet fever and diphtheria, the diseases for which it was chiefly employed. Thus, in Providence, after we had developed and applied methods of disinfection by steam, formaldehyde and corrosive sublimate, we had the most extensive outbreak of diphtheria which had occurred in fifteen years. Such an experience is far from unique and other failures of disinfection will later be noted.

We are coming to see that the contagious diseases are not as contagious as was formerly believed. It often happens that a case remains for weeks in a family without infecting others. In the average family with scarlet fever, the chance of children, even at the most susceptible age, contracting the disease is only one in three; for the adult males it is only one in fifty. The danger from infected things is manifestly far less than the danger from infected persons. In the latter the germs are continuously developing in enormous numbers, while on the former they are rapidly dying. There is no need of emphasizing to this audience the fact that the pathogens do not grow outside of the body.

A study of the extension of scarlet fever and diphtheria from one family to another in the same house indicates that fomites are of very much less importance in the transmission of disease than we formerly thought. A large series of observations in Providence show that such an extension occurs in only about six or seven per cent of the exposed families. Most of this secondary infection occurs before the disease is recognized, or among families known to have visited the infected household. If there is no communication between the families there is practically no extension of the disease. Yet in most tenement houses the well members of the infected family, many of whom, in diphtheria at least, are known to be carrying virulent bacilli, are using the same doors, hallways, stair-rails, cellars, water-closets, etc. All these parts of the house ought, according to current views, to be effective bearers of disease germs, yet they are shown to be in nowise dangerous. Many articles which ought theoretically to be most potent sources of infection, as money, rags, and second-hand clothing, have been shown to be practically innocuous.

The theory of infection by fomites never had any but the flimsiest basis in observation or experiment. It is true that instances are reported of possible infection by fomites in scarlet fever, diphtheria and measles, but though in the aggregate they are considerable in number, they are alleged for only an in-

finitesimal portion of the reported cases. No one has ever seriously attempted to estimate what proportion of cases are traceable to fomites. In the alleged instances of fomites infection there is almost never any real evidence that the disease is caused in the manner stated. There is usually only a possibility, rarely even a probability, and a demonstration would be almost unique. In the supposed transmission of disease by fomites, persons also are usually involved, either as the bearers of the things or otherwise, and persons are far more likely to be the bearers of the germs than are the things. Which is the more likely to cause the recurrence of diphtheria in a house, bacilli dying upon the walls and furniture, or propagating in throat and nose of convalescent or carrier?

The theory of infection by fomites, like the theory of infection by air, was purely *a priori* theory. To determine the sources of cases of contagious disease is usually impossible. There is not generally any direct and obvious connection with previous cases. Hence from remote antiquity fomites have been believed to be one of the chief factors in the extension of disease. Whatever its origin, the theory of infection by fomites has been maintained because it afforded the only explanation of the phenomena of disease extension. If other and better explanations are at hand this theory may be questioned, and it should be abandoned unless its advocates can substantiate it by observation and experiment. The burden of proof rests on those who would maintain the theory, not on us who question it.

It is now no longer necessary to assume the agency of fomites in the transmission of these diseases. Contact infection is the most obvious mode of extension, and though we know that contact between the well and the really sick does not usually take place, we do know that there is ample opportunity for the most direct contact between the general public and convalescent or other healthy carriers of disease germs. These unknown sources of infection are so numerous that most recognized cases may well be due to direct contact with them. We no longer have any difficulty in explaining the source of contagious diseases, the wonder rather is that there are not more cases. If infection by fomites were as effective as is supposed, there would be far more contagious disease than there is. The number of unrecognized human foci affords no room for infection by fomites.

The foregoing considerations, and others to be mentioned, had already led the writer to question very seriously the agency of fomites in the spread of disease, when the wonderful work of the American Yellow Fever Commission showed beyond question that yellow fever is never carried by fomites. I had always believed that if any disease was fomites-borne it was yellow fever. The evidence of its transmission by clothing, bedding and merchandise was stronger than for any other disease. Yet all this evidence was shown to be worthless. Was it not time to ask how often scarlet fever is carried in clothing, or how often diphtheria germs linger on the walls of a room?

The earlier findings of bacteriology seemed to support the theory of infection by fomites. It was learned that many bacteria, even those of the non-spore-forming kinds, have at times considerable powers of resistance. Bacilli of tuberculosis, of diphtheria, of typhoid fever and others, were shown to survive, under some conditions, for many months. It was even thought that they might under favorable circumstances propagate outside of the body. It is even

now no rare thing to hear health officers in good standing mislead the public by making statements that damp and ill-lighted houses are favorable for the growth of the tubercle bacillus. But we now know that the common disease-producing bacteria are not saprophytes. We know that instead of growing outside of the body they begin to lose their virulence and die almost as soon as cast off. The tendency of recent work is to show that pathogens are not so resistant as was formerly thought.

But the most important point is that most of the studies on the resistance of bacteria have not been quantitative, and many have failed to recognize that the virulence of germ often disappears before their death. We should realize that while a few germs may survive perhaps for weeks, most of them die in a few days. Houston showed that while some typhoid bacilli could be recovered from London tap water up to eight weeks, 99.9 per cent perished in one week. The survival of such a small percentage of pathogenic bacteria in water appears to be little dangerous; in the air it would probably be still less dangerous. Hill has suggested, and probably correctly, that the reason why tubercle bacilli, which are less resistant than diphtheria bacilli, are more often recovered from fomites than are the latter, is simply because the tubercle bacilli are discharged in such very much greater numbers that more of them have a chance of survival. The life of some pathogens, as the germs of pneumonia, influenza, gonorrhea and cerebro-spinal meningitis, is so restricted that fomites can certainly be of no moment in the extension of these diseases.

Of rather more interest, though by no means conclusive, is the field work of the bacteriologist. The researches of Cornet and a host of followers have shown that tubercle bacilli are quite commonly found in considerable numbers in the apartments of careless consumptives. Search for diphtheria bacilli has not, for the reason given above, been nearly so successful. Out of towards fourteen hundred swabblings taken from supposedly infected rooms by Schumberg, Weichardt, Hill, Gorham and Kober, diphtheria bacilli were found only about a dozen times and only on such objects as handkerchiefs, toys and drinking glasses.

After all, however, bacteriological evidence can not be conclusive. Although virulent bacteria may be found to some extent on objects supposed to act as fomites, they may not be an appreciable source of danger. Pus-forming bacteria are found in the air of operating-rooms, but the surgeons no longer sterilize the air as was at first supposed by Lister to be necessary. The epidemiological arguments previously considered have seemed to quite a number sufficient reason for seriously questioning the importance of fomites infection and the value of the usual routine terminal disinfection. To the writer there seemed little warrant for disinfecting after deaths from tuberculosis, which is supposed to be by most health officers and secretaries of anti-tuberculosis leagues such an important prophylactic measure. If, as the phthisiologists tell us, there is no danger in living with a careful consumptive, there can be no danger in living in his house after he is dead. Or, if a consumptive has been careless all through his sickness his family will gain no security by the rite of disinfection after his demise. If a careless consumptive dies or removes, it is, according to our present knowledge, desirable that his apartments should be cleaned, or disinfected if you will, before they are occupied by others, but to disinfect after every death, as has been

urged, has only resulted in focusing popular attention upon a very unimportant source of the disease.

But it is after diphtheria that the present practice of terminal disinfection seemed most unwarranted. There certainly can be no use in trying to destroy the few dangerous bacilli which theoretically may remain in the apartment occupied by a diphtheria patient, unless we can be reasonably sure that he and the other members of his family are not growing the bacilli on their mucous surfaces. This certainly we can not be sure of unless at least two successive negative cultures are obtained from throat and nose. Indeed, owing to the limitations of this bacteriological test, it is highly probable that even after two negative cultures the chance of the bacilli still persisting in throat or nose is much greater than it is that they persist on the walls and furniture. As such an onerous requirement as cultures from the whole family before release from isolation is impracticable, it was decided in Providence to abandon terminal disinfection, except under the conditions named, and this was done in March, 1905. An additional reason for this step was that the ordinary methods of disinfection are not reliable, and, as suggested by Rickards, we ought either to give up disinfection or really to disinfect. In Providence we chose the former. No unfortunate effect seems to have been produced on the prevalence of diphtheria. After the practice was abandoned in March the cases began to fall off until at one time in August there was not a reported case in the city. Again in August, 1908, the disease was reduced to a single case. It is true that we have had an extensive outbreak since disinfection was abandoned, but it was scarcely half as severe as one in Worcester at almost the same time, and though we have had more diphtheria during the last few years than some cities, it has been substantially the same as in the nearby city of Boston.

The amount of recurrence of the disease in the family is generally believed to be a measure of the value and success of disinfection, though it seems to me probable that practically all such recurrences are due to infection from carriers in the family. This is strongly suggested by the fact that recurrences after the return of patients from the hospital are about as frequent as they are after the removal of the warning sign in home-treated cases. For the benefit of those who lay stress on the importance of recurrences, the following figures from the experience of Providence are given:

PROVIDENCE.

The number of recurrences after disinfection, the number of infected families and the rate of recurrence during the years 1902 and 1905 was as follows:

DIPHTHERIA, 1902-5.

Year.	Infected Families.	Recurrences.	Rate
1902.....	358	6	1.67
1903.....	453	7	1.54
1904.....	559	10	1.78
1905.....	87	2	2.30
 Total.....	 1,457	 25	 1.71

The number of recurrences since February, 1905, where there was no disinfection, and the ratio to infected families where there was no disinfection is as follows:

DIPHTHERIA, 1905-9.

Year.	Infected Families.	Recurrences.	Rate.
1905.....	258	4	1.55
1906.....	259	4	1.55
1907.....	343	7	2.04
1908.....	687	17	2.34
1909.....	472	10	2.12
Total.....	2,019	42	2.08

There is certainly nothing in these figures to suggest danger from abandoning disinfection. The difference in favor of disinfection is not greater than the margin of error. It is interesting in this connection to compare the recurrences in Providence, where there is no disinfection, with the recurrences in Baltimore where disinfection is done and carefully checked by test cultures.

RECURRENCES AFTER DIPHTHERIA.

Ratio of recurrences within sixty days, in house, to number of reported cases.

BALTIMORE.

Year.	Cases.	Recurrences.	Per Cent.
1903.....	1,096	20	1.82
1904.....	1,241	18	1.45
1905.....	962	17	1.77
1906.....	1,172	22	1.87
1907.....	867	21	2.42
1908.....	837	10	1.19
1909.....	756	14	1.85
Total.....	6,931	122	1.76

PROVIDENCE.

DISINFECTION.

Year.	Cases.	Recurrences.	Per Cent.
1902.....	530	8	1.51
1903.....	706	7	0.99
1904.....	780	19	2.44
1905.....	140	2	1.43
Total.....	2,156	36	1.67

NO DISINFECTION.

Year.	Cases.	Recurrences.	Per Cent.
1905.....	422	5	1.18
1906.....	407	6	1.47
1907.....	570	7	1.23
1908.....	917	17	1.85
1909.....	639	3	0.47
Total.....	2,955	38	1.28

In order to make the Providence figures comparable to those of Baltimore, it was necessary to include recurrences in other families in the house as well as in the family first invaded, and to calculate the percentage on total cases rather than on invaded households. As for the invasion of other families in the house after removal of the warning sign from the first family, it was in Providence, when there was disinfection 1.2 per cent. of 851 families, and when there was no disinfection 0.4 per cent. of 1,679 families.

Another possible method of testing the value of disinfection is to note how often well persons removing from the infected family during the course of the disease are taken sick on their return. In Providence, since disinfection was abandoned, of 585 persons, of whom 510 were under twenty-one years of age, who thus went away from home, only one was taken sick after return, or 0.18 per cent. Previous to the abandonment of disinfection there were 9 attacks among 1,055 persons, or 0.85 per cent.

There is nothing in these experiences to indicate that there is any appreciable value in the practice of routine terminal disinfection after diphtheria. So evident is this and so similar, from an epidemiological standpoint, are scarlet fever and diphtheria, that we have been gradually abandoning disinfection after the former disease also. The following shows the recurrences where there was and where there was not official disinfection:

PROVIDENCE.

The number of recurrences after disinfection for scarlet fever, the number of infected families, and the rate of recurrence during the years 1905 to 1908 was as follows:

SCARLET FEVER, 1904-9.

Year.	Infected Families.	Recurrences.	Rate.
1904.....	868	12	1.38
1905.....	298	2	.67
1906.....	398	9	2.26
1907.....	540	8	1.48
1908.....	273	3	1.09
1909.....	52	3	5.77
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Total.....	2,429	37	1.52

During the last two years the recurrences where there was no disinfection were as follows:

SCARLET FEVER, 1908-9.

Year.	Infected Families.	Recurrences.	Rate.
1908.....	40	1	2.50
1909.....	377	10	2.65
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Total.....	417	11	2.64

The next table shows the number of recurrences in Baltimore and Providence, comparable data being employed as in the table for diphtheria:

RECURRENCES AFTER SCARLET FEVER.

Ratio of recurrences, within sixty days, in house, to number of reported cases.

BALTIMORE.

Year.	Cases.	Recurrences.	Per Cent.
1903.....	1,224	10	0.89
1904.....	1,222	21	1.72
1905.....	615	12	1.95
1906.....	577	7	1.21
1907.....	436	11	2.52
1908.....	1,262	17	1.34
1909.....	456	6	1.31
	—	—	—
Total.....	5,792	84	1.44

PROVIDENCE.

DISINFECTION.

Year.	Cases.	Recurrences.	Per Cent.
1904.....	1,220	23	1.88
1905.....	454	6	1.32
1906.....	615	12	1.95
1907.....	809	10	1.24
1908.....	389	3	.77
1909.....	75	3	4.00
	—	—	—
Total.....	3,562	57	1.60

NO DISINFECTION.

Year.	Cases.	Recurrences.	Per Cent.
1908.....	52	1	1.92
1909.....	552	16	2.90
	—	—	—
Total.....	604	17	2.81

Both theory and the facts, so far as any data are available, indicate that terminal disinfection after diphtheria and scarlet fever is of no appreciable value. Much of the disinfection after tuberculosis also is useless. The feebleness of the germs of influenza, cerebro-spinal meningitis and pneumonia indicate that fomites can have no part in the extension of these diseases, and that disinfection is unnecessary. In all diseases in which the carriers and missed cases are very numerous, or in which the patient is infectious and about, during the prodromal stage, terminal disinfection can accomplish nothing and for this reason alone it is useless after the diseases just named, and also after measles and whooping-cough. Disinfection after measles, which was practiced in Averdeen for twenty years, had no influence on the prevalence of the disease, neither did the adoption of this practice in New York, and its omission for a time in 1908 was without effect. There is no evidence that disinfection after cerebro-spinal meningitis in New York had any influence in checking the disease.

These views in regard to disinfection are not local merely, but have been developing independently in the minds of many. Several leading French physicians have stated that compulsory disinfection has not lessened contagious diseases in Paris. Comby is emphatic in his contention that it is persons, not things, which are the bearers of infection. Lemoine has shown that the dis-

infection of hospital rooms is not necessary to prevent the development of contagious diseases. In England Richards says terminal disinfection after diphtheria is of very little importance, and Barlow, Butler, Hogarth and other health officers have ceased to regard disinfection as essential. The disinfection of schoolrooms, periodically, as well as after the occurrence of contagious disease, has been urged by many besides the makers of disinfectants, especially in England, but most of the health officers have refused to be led by the clamor, and Kerr, the chief medical officer of schools in London, has clearly set forth the reasons why the rooms can rarely be at fault in school outbreaks of the contagious diseases.

While there is no evidence that fomites, as the term is generally understood, have an appreciable part in the spread of contagious diseases, there can be little doubt that much of what is properly called contact infection is mediate, and is due to the transfer of fresh infective material on inanimate objects. This mode of infection is to be combated by employing as scrupulous cleanliness as possible in the care of the patient. Plenty of soap and water daily on the things directly in contact with the patient, and on the hands of the nurse will do much to prevent the spread of disease in the family. Terminal disinfection does nothing and in a large degree withdraws attention from the importance of contact infection and the necessity for personal cleanliness. It is chiefly for this reason that the routine practice of terminal disinfection is objectionable. It is not a harmless custom, but it is a powerful factor in focusing attention upon unimportant modes of infection. Moreover it costs money. In Baltimore, for instance, the expense is \$6,000 per annum. A good visiting nurse can be obtained for \$1,000 and six such nurses could accomplish a world of good in assisting in the care of the sick and instructing, by precept and example, in methods of cleanliness in the management of contagious diseases.

It is not claimed that thorough terminal disinfection is never necessary. When a new or comparatively rare disease invades a locality, it may at times be desirable to take extraordinary precautions to prevent its extension, precautions which would be entirely useless if the disease were established. If a case of smallpox should occur in a city which has been free from it for years, it would be worth while, perhaps, to expend considerable time and money in disinfection, even though the chance of infection from the room or goods might not be one in a thousand. But if there were hundreds of cases of measles in the city, it would be folly to go to the same trouble and expense for each case, even if the chance of infection were ten times as great. A spark in the dry grass should be stamped out at any cost, but it is useless to waste time in extinguishing the smoldering flames left here and there as the line of fire is sweeping across the prairie.

PROGRESS IN PUBLIC HEALTH EDUCATION

A few weeks ago one of the foremost weekly magazines of the United States, speaking editorially in regard to the fight between the police and anarchists in London, said among other things: "Nobody, we believe, now pretends that there was ever a moment when the anarchists could possibly have inflicted a tenth part as great damage upon society as the little housefly inflicts every day;" and again: "Get-

ting excited about anarchy when people who may be infected with tuberculosis still spit in public places seems to us a sad misdirection of energy."

The above would indicate that the efforts of the boards of health, tuberculosis associations, civic federations and other bodies in fighting the housefly and tuberculosis are reaping good results.

But it is difficult to understand the following in this connection. On January 26th one of the weekly papers of Florida (its name need not be mentioned) said in its news column: "The tax assessor and collector cut out part of their itinerary in the southern part of the county for the present, on account of the prevalence of smallpox in that section." If the tax assessor and the collector had been successfully vaccinated there would have been no danger for them to fear from smallpox even if they had come in contact with cases of the disease.

The FLORIDA HEALTH NOTES is sent regularly to the editor of the paper in which the above appeared; the tax collector in that county as well as the assessor also receive the publication. It may be they do not read it. If they had read several of the late issues they would have found some good sound advice on this point.

There is a certain magazine in this country whose name we would hesitate to mention in these columns, but it has such a unique ad that the desire to comment on that is irresistible. It says that "THIS IS THE ONLY PERIODICAL IN THIS COUNTRY THAT CONTAINS NO INFORMATION." Isn't that a unique confession when its long suit is fighting vaccination and vivisection?

MALARIA OF BIRDS

We are not the only creatures that have malaria. Birds also suffer from malaria. Only they have a slightly different malaria "bug" from ours. Their "bug" wouldn't hurt us, and ours wouldn't hurt them. Why that is so no one can say, but it is so. It may be that the malaria bugs of birds would get chilled and die because we are so much colder than birds are—ten or twelve degrees Fahrenheit. And it may be, too, that our bugs would die of heat-stroke if introduced into birds.

Still another curious thing is that the malaria parasite, I mean ours, while he passes part of his existence at human temperature he passes another part at the temperature of the mosquito, which is only slightly higher than the surrounding air. And that varies a good deal. It may go as low as thirty or forty degrees in winter and as high as

higher than eighty or ninety degrees in summer. So he can stand a good deal of variation in temperature.

But then on the other hand it is one kind of bug that stands this great difference and another kind that doesn't. That is to say, it is one kind of bug while in the human being, and its offspring in the mosquito is another kind. That of itself is curious. That the parent bug should give rise to baby bugs so different from itself; and that these baby bugs should in turn give rise to kinds like their parents; and that the parent bugs should live in the mosquito and the baby bugs in the human being—all these are curious facts, but facts none the less.

And isn't it another curious fact that the bugs that live in the *anopheles*, and whose babies give us malaria, can not live in any other mosquito? And that the bugs that live in the *culex*, and whose babies give malaria to birds, can't live in other kinds of mosquitoes?

In London they have gone so far as to have an anti-vivisection hospital. Recently a child swallowed a piece of coal, got it lodged in the "voice-box" and was suffocating. In the emergency it was sent to the nearest hospital, which was the anti-vivisection. They refused to take it in because, they said, they had no bed for it. The coroner at the trial asked if they couldn't make shift for a baby nine months old? The reply was that, perhaps, if they had thought of it. But, at any rate, they turned it away and sent it to an infirmary, but it was in a dying condition when it got there. A hasty tracheotomy was performed, but it was too late. The jury while not convicting the anti-vivisection hospital, did add to their verdict this rider: "The jury does not appreciate the action of the anti-vivisection hospital authorities."

But what could the jury expect, any way?

"The *Pensacola Journal* is of the opinion that leprosy is not as bad as some people seem to think, and is inclined to encourage the establishment of a national 'leporian' in Florida, where the climatic conditions are said to be very beneficial in curing the dreaded disease. Y-e-s. And now we come to think of it, the government has a reservation near Pensacola which is about to be abandoned for military purposes. Why wouldn't this reservation make a good 'leporian'? The climate of Escambia county is excellent, with fine salt air to sniff."—*Palatka News*.

But seriously, many lepers, in spite of their loathsome malady, enjoy general good health. There are lepers that had they not been in a

leper hospital, would have hardly been suspected of having anything the matter with them. There are lepers that though they looked "farben," as the Scotch would say, were still in fair health. One assured the writer that he had never felt better in his life—that he had not been sick a day in ten years, though his fingers had undergone ulcerative absorption until he had only stumps remaining, and his ears and nose badly deformed. They are a happy lot of people under fair conditions. They marry and are given in marriage and non-leprous children are frequently borne by leprous parents.

But a leper hospital is like a smallpox hospital—everybody wants it somewhere—nobody wants it near.

HOG CHOLERA SERUM

In a press bulletin of the Florida agricultural experiment station, written by A. R. Spencer, on the subject of hog cholera, occurs the following passage:

Florida should have an appropriation from the legislature of not less than \$8,000, to furnish the necessary plant and equipment to supply the needed serum to the farmers of the State. Such a plant once established and well under way would be made nearly self-sustaining by charging those whom the vaccine is supplied with the cost of production, and no more.

This seems a very modest sum to ask for to bring about so great a benefit to, not only the hog raisers, but the whole State. Every hog raised is an addition to the wealth of the State. It adds something to the tax duplicate. When sold it adds that much to the wealth of our citizens; if the owner slaughters and eats it there is that much less sent out of the State to pay for pork. Almost, if not quite, every hog-raiser is a landowner. It is but a small sum to pay to enable him to protect his property.

We have not at hand the figures showing the annual loss to the raisers of swine from cholera, which is very heavy, we understand; in fact, enough so to be somewhat of a discouragement to the breeders. The State government has always shown a disposition to aid the farming element of our citizenship; we do not believe that the legislature will evince any backwardness to appropriate this small sum for so worthy an object.

It may need to be "shown." This is an easy task, for the national agricultural authorities have shown, by the most careful and conclusive experiments, the great value as a preventive of the serum that has been discovered. The fact of the value of the preventive as a certainty in its action has been abundantly proved, so much so that a number of State governments have already taken steps to do just what Florida is asked, by her agricultural experiment station, to do.

Two months hence the Florida legislature will be in session. The question of the need of such a State plant as is here proposed should be discussed with the legislators in the meantime and pledges secured, so that all the members may

be informed of the magnitude of the need before the subject is brought before them in the course of the proceedings.—*Editorial Times-Union, February 9, 1911.*

Quite true. Quite true. Smallpox is not the only disease preventable by vaccination. But what will the anti-vaccinationists say to see the procession walk off and leave them?

ANNUAL SESSION, STATE BOARD OF HEALTH— ABSTRACT OF TRANSACTIONS

Pursuant to the requirements of the Statutes of Florida, the State Board of Health met in annual session at the executive offices of the Board, Jacksonville, Florida, on February 14 and 15, 1911. The following persons were present: Hon. E. M. Hendry, President; Dr. H. L. Simpson and Hon. John G. Christopher, members of the Board; Dr. Joseph Y. Porter, Secretary and State Health Officer, and Dr. Hiram Byrd, Assistant State Health Officer.

The minutes of the 1910 meetings of the Board were read and approved. The Annual Report of the State Health Officer for 1910 was read, accepted and ordered transmitted to the Governor of the State, and it was also ordered that the report be printed and distributed in the usual manner.

The letter of transmittal, from the President to the Governor, was read, and ordered submitted to the Governor with the Annual Report.

The rules and regulations of the State Board of Health were then discussed and a revision of the same made. The new rules were referred to the attorney of the Board for legal opinion.

The scales of salaries paid the attaches in the Division of Field Sanitation and in the Division of Bacteriological Laboratories were changed in several instances, proper increases being made where it was deemed justified.

1910 ANNUAL REPORT

The Twenty-second Annual Report (for the year 1910) of the State Board of Health of Florida, which was accepted by the Board in annual session on the 14th and 15th of February, 1911, is now in the hands of the printer and the work of printing the document is being rushed to completion. It is hoped that the Report will be mailed out during the latter part of the month of March.

HOOKWORM DISEASE

Hookworm Disease, publication No. 79, of the State Board of Health, a pamphlet of 70 pages, has been received from the printer. It is desired that this pamphlet shall be placed in the hands of every

physician, health official and teacher in the State, as well as distributed to those private citizens by whom it can be used to advantage in furthering the campaign for the amelioration of this disease.

TUBERCULOSIS NOTES

The Fight Against Consumption All Around the World

Associations for the prevention of tuberculosis have been formed in Cuba, Porto Rico and Trinidad. In Cuba there are over forty thousand deaths from tuberculosis every year, and the death rate from this disease is nearly three times as high as in the United States. In Porto Rico there are over six thousand deaths every year out of one million inhabitants. In Trinidad, the death rate from tuberculosis in Port-of-Spain, the only place where figures are available, was 4.75 per 1,000 in 1909, nearly three times the rate in New York City. Conditions in the other islands of the West Indies, where no active campaign against tuberculosis has been undertaken, are even worse. The chief reason for this high mortality is found in the unsanitary, dark, and poorly ventilated houses of the natives of the islands.

In Denmark, the campaign against tuberculosis has been carried on systematically since 1895. The reporting of living cases of tuberculosis in Denmark has been more successful than in almost any other country of the world. The death rate from pulmonary tuberculosis has fallen from 19.32 to 13.33 per 10,000 from 1895 to 1908. There is now one sanatorium for every 1,244 inhabitants and every tuberculosis patient is assured of treatment at a cost within reach of anyone. The State pays three-fourths of the expense of treatment and the patient or his community the remaining fourth.

The Italian government, on account of the number of tuberculosis cases among the Italian emigrants sent back from America, has appointed boards of examiners in the seaports, whose duty it is to report the arrival of tuberculous persons. These are then kept under observation in those places where they settle, to prevent further spread of the disease. The erection of new sanatoria and other tuberculosis institutions is being urged in Italy, and the number of beds for consumptives has been considerably increased in different places.

Consumptives in Syria are treated today much in the same way as the lepers have been for the last two thousand years. Tuberculosis is a comparatively recent disease among the Arabs and Syrians, but so rapidly has it spread that the natives are in great fear of it. Consequently when a member of a family is known to have the disease, he is frequently cast out and compelled to die of exposure and want. A small hospital for consumptives has been opened at Beyrouth under the direction of Dr. Mary P. Eddy.

The Anti-Tuberculosis movement was started in Hungary in 1894, and in 1898 there were five institutions for the treatment of consumption. Today the

campaign is encouraged and financed by the government, and over two hundred different agencies are engaged in the fight. A permanent tuberculosis museum has been established at Budapest and a carefully conducted campaign of education is being carried on.

Japan is not lagging behind in the fight against tuberculosis. The Japan Health Association has over 200,000 local members and carries on a campaign of lectures in the cities and towns of the country. Tuberculosis is increasing in Japan, due chiefly, Prof. S. Kitasato of Tokyo says, to the rapid development of the factory system of industry, the introduction of modern methods and manners of civilization, and the increasing acuteness of the struggle for existence.

When the International Congress on Tuberculosis meets at Rome next September, representatives of over thirty National and provincial associations organized to fight tuberculosis will be present. Among the associations which will be represented are The United States, Canada, Cuba, Trinidad, England, Wales, Ireland, Norway, Sweden, Denmark, Russia, Germany, Belgium, Holland, France, Switzerland, Portugal, Italy, Greece, Bulgaria, Hungary, Austria, New Zealand, Japan, Cape Colony, Argentina, Brazil, Chile, Newfoundland, Roumania, Uruguay and Venezuela.

REPORTS FROM COUNTY AGENTS

The State Health Officer has received, and desires to express thanks for, annual reports regarding 1910 sanitary conditions in the State, from the following county agents of the State Board of Health:

Dr. J. Harrison Hodges, Gainesville, Alachua county; Dr. L. A. Peek, West Palm Beach, ex-agent for Brevard and St. Lucie counties; Dr. T. M. Edwards, Green Cove Springs, Clay county; Dr. R. L. Cline, Arcadia, DeSoto county; Dr. Warren E. Anderson, Pensacola, Escambia county; Dr. B. B. Blount, Carrabelle, Franklin county; Dr. G. W. Lamar, Quincy, Gadsden county; Dr. R. Dean Tompkins, Jasper, Hamilton county; Dr. W. H. Cox, Brooksville, Hernando county; Dr. Chas. Wm. Bartlett, Tampa, Hillsboro county; Dr. J. R. McEachern, Monticello, Jefferson county; Dr. W. D. Bush, Leesburg, Lake county; Dr. F. Clifton Moor, Tallahassee, Leon county; Dr. L. C. Ruter, Madison, Madison county; Dr. H. Baer, Braedntown, Manatee county; Dr. D. G. Humphrey, Fernandina, Nassau county; Dr. W. Kilmer, Orlando, Orange county; Dr. M. J. Hicks, Kissimmee, Osceola county; Dr. C. M. Merrill, West Palm Beach, Palm Beach county; Dr. W. E. Seay, Dade City, Pasco county; Dr. E. W. Warren, Palatka, Putnam county; Dr. H. Mason Smith, Milton, Santa Rosa county; Dr. W. C. White, Live Oak, Suwanee county; Dr. John MacDiarmid, DeLand, Volusia county; Dr. C. B. McKinnon, DeFuniak Springs, Walton county; Dr. F. C. Wilson, Chipley, Washington county.

These reports will be published in the Twenty-second (1910) Annual Report of the State Board of Health and will form a valuable index to health conditions as they existed in the several counties reporting during the year past.

FLORIDA



Health Notes

OFFICIAL BULLETIN

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Tampa, Fla.

HON. H. L. SIMPSON, M. D.,
Pensacola, Fla.

HON. JOHN G. CHRISTOPHER,
Jacksonville, Fla.

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Tampa, Florida Avenue and Constant Street.
Pensacola, City Hall.

Sent to any address in the State for the asking.

If you receive it without asking, it means that someone else has requested
it for you.

When you change your address drop us a card.

When giving change of address, give both the old and the new.

Anything you want to know about the public health we will try to tell you.

Any information you want about communicable diseases of domestic animals
we will help you to get.

Address communications to Jacksonville, Fla.

*Take up the White Man's burden—
The savage wars of peace—
Fill full the mouth of Famine
And bid the sickness cease;
And when your goal is nearest
The end for others sought,
Watch Sloth and heathen Folly
Bring all your hope to naught.*

—Rudyard Kipling.

HYDROPHOBIA

Hydrophobia is still a public health factor in Florida and promises to be so for some years to come. The disease has become anchored in the State and drastic means for its eradication will not be tolerated by the public. The only way it can be eradicated is by systematically killing stray dogs and muzzling all others when not in confinement, and the public of Florida will not stand for measures of this heroic nature. The result is that hydrophobia will continue to harass the dogs and people of Florida. The only recourse is to make the best of the situation. This we are doing by—

Maintaining laboratories to make quick and positive diagnosis of rabies.

Giving the Pasteur treatment to those who are bitten by rabid animals.

Advising with city councils in communities where hydrophobia becomes prevalent, and instituting measures to check its spread.

At the laboratories, located at the three strategic points of the State—Jacksonville, Tampa and Pensacola—diagnoses can be made with dispatch. The difficulties experienced are:

1. The head is sometimes sent not packed in ice and reaches the laboratory in a state of putrefaction. It cannot be examined when in such condition.
2. The head is sometimes amputated prematurely, that is, as soon as the bite is inflicted. In such cases it is more difficult to make a diagnosis, and the laboratory, under such circumstances, is loath to make a negative diagnosis.
3. Sometimes the bite is inflicted and the animal allowed to escape, so that the head does not reach the laboratory at all.

In all these cases there is only one course to pursue, and that is to give the Pasteur treatment if the symptoms of the dog were at all suspicious and if the bite inflicted was sufficiently extensive and did not receive prompt cauterization.

The Board has often emphasized the course to pursue, but it seems to take the public a long time to "catch on," hence these misfits, many of which could be prevented.

The Board advises that in all cases where an animal inflicts a bite upon a human being, *not to kill the animal*, but to confine it for a period of five or six days and note symptoms, and if the dog is really sick, to keep him confined until he dies, and then pack the head and neck in ice and express it to the laboratory. If this course were pur-

sued it would save the administration of the Pasteur treatment in many cases.

The treatment is still administered by the family physician. It is prepared by the Dr. H. M. Alexander Co., of Marietta, Pa., and as soon as it is decided to administer it to a patient, the laboratory is wired and the treatment sent immediately to the family physician. The plan works very satisfactorily. It is not likely that this plan of administration will be improved upon for many years to come, if ever—*From Twenty-second (1910) Annual Report of the State Board of Health of Florida.*

TYPHOID FEVER

Helps in the Management of Typhoid Fever, Recommended by the State Board of Health

Typhoid fever is due to a very small vegetable organism, the typhoid bacillus.

These little germs grow in the human body in countless millions, and as they die and disintegrate they set free a poison which causes the symptoms of typhoid fever.

The typhoid fever germs are thrown off from a typhoid patient in all the excretions, that is, the stools, urine, sputum, and perspiration. It frequently happens that patients excrete typhoid bacilli in the urine and stools for weeks or months after recovery. Hence all these excretions are to be regarded as highly infectious; that is, they are full of typhoid germs.

Good management of a typhoid fever case has for its object the prevention of these germs reaching other people and producing other cases of typhoid. To this end the excretions, that is the urine and stools, of typhoid patients should all be disinfected by the addition of ten per cent formalin equal in quantity to the amount of the material to be disinfected, and left to stand two hours before final disposition.

All carpets, rugs, etc., should early be removed from the sick-room.

Eating utensils used by the patient should be removed from the room after each meal, in a dishpan, and the pan immediately filled with *boiling* water and left to stand fifteen to twenty minutes before washing.

Soiled bed linen, nightgowns, etc., should be removed from the room in a large vessel, say a zinc pail or tub, and covered with *boiling* water. Better still set them on the stove and let them boil a while.

Only the person attending the patient should be in the sick-room. The attendants should always wash the hands carefully after touching the patient or bedding, for the bedding, it must be remembered, is also infected.

Flies delight to visit the sick-room which is very annoying to the sick, and very dangerous to the well, for flies passing from the bed of the sick to the food of the well, contaminate the food and produce other cases of typhoid fever. If possible, the sick-room should be screened and all flies kept out.

After the case is terminated the room should be thoroughly cleaned.

VACCINATION AGAINST TYPHOID FEVER

The only feature of typhoid fever development for the year of any note is embodied in the fact that some seventy-five persons in the State were vaccinated against the disease.

To understand the rationale of typhoid vaccination it is to be remembered that typhoid fever is due to a minute vegetable organism, the typhoid bacillus. This organism, after finding its way into the human being through food or drink, gets into the blood stream and multiplies in great numbers. While the germs are alive they do no harm, for they belong to the class of endotoxic organisms, that is to say, they do not throw off any toxin (poison) until after their death. But after the death of the germs they set free a toxin and it is this toxin that causes the rise of temperature and the general train of symptoms that we know as typhoid fever.

Therefore, when a patient has typhoid fever, he has myriads of these organisms in his body, living, multiplying and dying, and it is the dead ones that set free in the system the toxin that causes the symptoms. In other words, if the typhoid organisms could be thrown off as fast as they die, there would be no symptoms from the living germs.

Now, when a person has typhoid fever, he becomes immune against it, so that he does not have it again. Or at any rate very rarely does. And since it is the dead germs that have caused the fever, it is patent that it is the dead germs that have caused the immunity. Then to produce the immunity, it is only necessary to introduce a limited number of dead typhoid germs. And that is what vaccination against typhoid fever means. The germs of typhoid fever are grown in the laboratory. They are killed at a temperature of 53° maintained for one hour. Then a solution is made in which every cubic centimeter (quarter of a tea-spoonful) contains one billion organisms. The first dose given is a

half cc., or five hundred million organisms. Ten days later a second dose of one cc., equal to one billion organisms, is given, and after a second ten days' interval a third injection equal to the second is given.

The symptoms in mild cases are soreness of the arm where the injection is made, a slight rise of temperature, perhaps, with a general feeling of indisposition lasting one or two days. In severe reactions these symptoms are more pronounced, and in some cases diarrhoea supervenes for one day. Not one of the seventy-five vaccinated suffered any special discomfort.

The protection afforded by the vaccination is best indicated by statistics from the English army, where about one-half of twelve thousand soldiers were vaccinated and the other half not.

During a period of two and one-half years the typhoid rate among the vaccinated was 3.8 per thousand, while among the unvaccinated it was 28.3.

The vaccine we used was furnished by courtesy of Surgeon-General Torney of the United States Army, and by Major Russell, Director of the Army Medical Laboratory.

Vaccination against typhoid fever now seems to be on a sound basis and will eventually become more and more used. It can be had now from commercial sources and any physician can administer it, so that all who want to be vaccinated against typhoid fever may do so. The protection that it offers lasts, it is believed, not less than six or seven years.—*From Twenty-second (1910) Annual Report of the State Board of Health of Florida.*

INCIDENTS OF SMALLPOX CONTROL

In the absence of a law requiring vaccination, and having abandoned the old, inefficient, expensive method of guarding and quarantining smallpox, difficulty is experienced at times by the Assistant State Health Officers in preventing a spread of the disease among the anti-vaccinationists. Many reasons are given for this opposition. Some solemnly declare they prefer to have smallpox (and many of these have realized their preference), while occasionally one is found who "packs" a gun and dares any man to vaccinate him.

The experiences encountered in a town or county during the course of an epidemic of smallpox are often valuable lessons in dealing with citizens in other parts of the State.

Several months ago Dr. C. T. Young, Assistant State Health Officer, was busily engaged in caring for quite a large outbreak of the disease

in one of the centrally located counties, and as is always the procedure, was offering vaccination free of charge to those who would take advantage of this protection. Many of the intelligent citizens at once availed themselves of the privilege, but it is related by the doctor in his reports that among those who opposed the practice and refused to be vaccinated were a school teacher, a physician, and a county official, all of whom were afterward exposed to the disease and contracted serious cases. Among those opposing vaccination was a young man who made it his especial business to fill the town with the information that "as long as the balls in my pistol last and the blade of my knife holds, nobody will vaccinate me." Naturally, no one bothered him. He was allowed to blatantly pursue the course he had chosen. Ten days after his refusal to be vaccinated Dr. Young was called to the bedside of something that slightly resembled a man—a semi-confluent case of smallpox. It was practically an impossibility, so the doctor writes, to recognize the patient. Between the outbursts of pain and anguish, which were also punctuated by groans, he managed to say: "Doc, I wish that day when you wanted to vaccinate me you had taken a club, knocked my head off for being such a d— fool and had vaccinated me anyhow. Go in there and vaccinate those children and everybody else on this place. Keep 'em from having this thing if you can, for God's sake. I'm converted, but it's too late to save myself."

Some weeks before in handling another outbreak of smallpox in a community where several cases had occurred among the white citizens, an occurrence worth relating was provoked by an elderly lady. The old soul was a Christian Scientist. Each of the physicians of the town visited her and urged her to be vaccinated, but every one "fell down" in their efforts to persuade her. Dr. Young then had a session with her. She stated the case was "in the hands of the Lord." She was meekly told that the Lord only helped those who tried to help themselves and that physical inertia wasn't much indication of the power of the spirit. She then got out her Bible and read a few verses to the doctor and as he was leaving handed him some religious tracts to read. A young boy in the house, under this influence, refused also to be vaccinated. Several days afterward both developed smallpox.

And these incidents can be multiplied by scores. But the "antis" will not see nor hear even when proofs are furnished.

There is one time when everybody looks to his neighbor's welfare; that is to say, attend to his neighbor's business, and that is when his neighbor has smallpox.

A BABY'S WORTH

(From Bulletin California State Board of Health.)

(The California State Board of Health has found that the cost of raising a babe from birth to its twentieth year is \$4,150.)

What is the worth of a baby's smile?
 Give me the figures in money, man,
 Name me its value in gold, the while
 You snuggle the wee one, if you can.
 Tell me the worth of the rosy kiss
 As fresh and pure as the morning dew?
 What is the price of a joy like this?
 What is its moneied worth to you?

What is the worth of the sweet embrace,
 When wee arms cling in a glad caress,
 And a velvet touch of a baby face
 Against your own you can fondly press?
 What is the price for the restless tongue
 That chatters on in its baby glee?
 And the little song at the even sung—
 Who'll calculate what its worth may be?

What is the price of the eyes that shine
 Their merriest glances into your own,
 And the little fingers that oft entwine
 About your neck as you sit alone?
 Who'll name the cost of the little heart
 Which beats the love it is giving there?
 Who'll put a figure, in whole or part,
 On a single curl of the golden hair?

What is the worth of the first step made,
 As the baby feet leave the mother's side,
 And bravely, joyfully, unafraid,
 They toddle forth with no hand to guide?
 How shall we reckon the cost in gold
 Of the tears, the joys and the childish ills?
 What is the value? And who has told
 The price of the laughter which stirs and thrills?

What is the worth of a baby, pray?
 Give us the figures in gold once more?
 Name us the price you would gladly pay
 For the lisp of a voice which has "gone before?"
 What is the worth of the whispered prayer
 You used to hear in the eventide?
 What would you pay for a smile so fair
 From the face of the babe which has lately died?

—E. A. Brininstool, in *Los Angeles Express*.

HEALTH HINTS

If we procrastinate
 And fail to vaccinate
 The smallpox
 will
 get
 us
 sure!

Fly time is coming; get ready for it.

As a national industry, raising strong, healthy human beings should be as profitable as raising fine breeds of live stock.

The cow is the foster mother of millions of the human race.

The tuberculous cow must go.

It is a careless community that neglects the health problems of its educational system.

In the conservation of health an ounce of intelligence is worth a ton of ignorance.

"Where the sun does not go the doctor will" is an Italian proverb well worth remembering.

—Bulletin Chicago Department of Health.

A PREDICTION

In July, 1907, which is now nearly four years ago, there was published in *HEALTH NOTES* a little squib, as follows:

"It is pleasing to report that the end of June finds us without a known case of smallpox. Gradually, but slowly, during the last few years, we have gained on that formidable disease. Gradually, but slowly, the population of the State is becoming more and more immune to smallpox—some through having the disease, and some through vaccination. But like the governors on a steam engine, the closer we get to the goal the more completely is the steam shut off. *So that when smallpox ceases to endanger our immediate safety, we relax our efforts and anon the population is its easy prey again.* Though the end be ever in sight, it is never attainable."

How completely that prediction is fulfilled, you should know. This morning a man 'phoned to report a case of smallpox twenty miles from Jacksonville. While he was yet talking over the 'phone—possibly five minutes—the following reports came in:

One case thirty miles out,

One case seventy-five miles out,
One case three hundred and sixty-five miles out.

These reports, remember, came in during one telephone conversation. Of course they are not pouring in that thick all day and every day, but quite thick enough to satisfy the prediction.

But it is not nice to say, "We told you so."

There are two towns in Florida, neighbors somewhat, and somewhat neighborly. One is a little larger than the other, but no more ambitious. They are ahead of many Florida towns in many respects, some of which are very important. For instance, they have solved their smallpox problems—at least for the present. During the next few months or years, smallpox will harass the people of Florida almost beyond endurance. But these two places will just smile. Schools will throw fits on account of a case of smallpox, but not at either of these places. Tourists will evade places on account of smallpox, evade others to come to these places. Their population has been vaccinated. But how it came about is another story. It took forty or fifty cases of smallpox to bring it to pass at one of them. The other brought it to pass without it. There is the difference.

Which town would you prefer to live in? Which of these two do you think is the more progressive?

SCARLET FEVER

Helps in the Management of Scarlet Fever, Recommended by the State Board of Health

Unless means are taken to combat scarlet fever when it appears in a community, it may spread rapidly and do incalculable damage in a short time. The measures taken to check the disease are troublesome, but they are trifling compared to the danger to the community, and will save much greater trouble and suffering, without great expense.

A few general principles apply to communicable diseases which, unrestrained, tend to become epidemic in character.

First. Cases should be isolated, not partially but completely, from well members of the family, and in order to do this effectively, a room for the treatment of the case or cases should be selected in the dwelling or home, well ventilated, and as far removed from the other occupants as is possible. To avoid a great deal of trouble after the termination of the case, and to lessen the danger of retained infection, the room

should be as scantily furnished as will be conducive to comfort and hygienic care of the patient. Carpets, rugs, curtains, and superfluous articles of furniture should be removed, the floors, ceilings, and window-casings wiped off to remove dirt and dust, and ample receptacles provided for disinfecting solutions, before the sick one is moved in.

Second. Only those who intend to nurse the sick and remain with the case should be allowed in the sick-room. On no condition should the nurse be permitted to have communication with the well members of the family or with the outside public without completely changing outer garments and disinfecting face, hands, hair, and beard. As this process is a troublesome thing to do several times a day, it is the better plan for nurses in contagious diseases to keep themselves isolated with their patients.

Third. During the progress of contagious sickness, articles used in the sick-room should be disinfected before leaving the apartment. Tumblers, mugs, dishes, knives, and forks, after being used by the sick should be dipped in a disinfecting solution or immersed in actually boiling water for fifteen minutes, and body linen, bedclothes, towels, handkerchiefs, and, in fact, every textile article used in or about a sick-room or person, should be immersed for several hours in a strong germicidal solution before being removed from the room to be laundered. The excreta of the sick—stools, urine, and discharges of every kind—should always be disinfected before being taken in covered vessels from the sick-room. In some diseases, such as diphtheria and scarlet fever, where there is apt to be much mucous and membranous discharge from the mouth and nostrils, the use of paper napkins is preferable, for these can be burned in a fireplace or stove in the room. This is also a good method of disposal of such soiled textile articles as have no particular value.

Fourth. On the termination of a case of contagious sickness, by complete recovery of the patient or by death, the apartment should be disinfected before being again used. Mattresses, pillows, and such bed-room furnishings that can not be boiled should be burned after removal from the room and when possible this removal should be in covered boxes or vessels with impervious coverings.

No one should then enter the sick-room until it has been fumigated by some person designated for that purpose. After the room has been fumigated, it should be sunned and aired for several days. It should finally be carefully scrubbed with soap and water, and its woodwork should be well washed. Articles of no value which remained in the sick-room during the patient's illness should be burned. Fumigation

is never perfectly satisfactory. Everything possible should be boiled or burned.

The foregoing are some of the precepts which should be followed when dealing with any of the infectious and contagious diseases, and are equally applicable to cases of diphtheria, scarlet fever, measles, and smallpox.

Scarlet fever—scarlatina—as you doubtless know, is a highly contagious malady, which may be contracted at any age by those not protected by a previous attack, but is principally a disease of the developing period of life—youth—from infancy to twenty or thirty years. It is a disease, even when skillfully treated, which often leaves in its trail impairment of hearing, diminished eyesight, chronic sore throat, or kidney affection. Therefore, no one, especially a child, should be exposed under the fallacious idea, which is criminal, that children should have this disease before advancing to manhood or womanhood.

Anyone who would intentionally or needlessly expose another to the poison of scarlet fever, or any of the more highly contagious epidemic diseases, should be prosecuted by the law.

When scarlet fever is reported or suspected in a community, every sore throat accompanied by fever, and subsequently a rash, should be looked upon with uneasiness, and should be isolated from the well until the judgment of a physician is invoked.

Moderately severe cases generally present premonitory symptoms of sore throat, high fever—from 103 to 105° F.—from twenty-four to thirty-six hours, and perhaps three days, when a bright red rash appears all over the body, accompanied with itching. The tongue has red papillæ (which are plainly seen), with red tip, and which gives it the appearance of a strawberry. A strawberry tongue, therefore, with the other symptoms mentioned, and with albuminous urine, is strongly indicative of scarlet fever. From ten days to two weeks, sometimes longer or shorter, according to individual cases, the rash fades and disappears, when the desquamation period begins. This is an effort of nature to cast off the dead epidermis—scarf skin—of the body. Scarlet fever is a necrobiotic disease, destructive to tissues principally glandular. It is at this stage of sickness that ear trouble is manifested, eyesight impaired, or kidneys become acutely inflamed. And it is also at this stage that the contagious principle is most acute and readily communicable.

No adult or child sick from scarlet fever should be given liberty or allowed communication with the public generally, until the des-

quamation period is entirely and completely finished. Parents in their impatience and haste to be relieved from restrictive regulations, too often declare their child or children well who have lately been sick from scarlet fever, before they *are well*, and before this "scarf skin" shedding period is through with. Thus, in a few days or weeks, other cases are reported in the same neighborhood among children who have been visiting, or playing elsewhere, with the scarlet fever convalescents.

In addition to insisting upon and maintaining a proper isolation of the sick with their nurses, if the municipal or town authorities will require imperatively that a scarlet fever case shall not be released from restrictive regulations until the "shedding" stage is completely over, and will then see that the room, rooms, or entire premises, if deemed advisable, shall be *perfectly* disinfected, there should be no difficulty in preventing scarlet fever from spreading beyond the initial cases.

QUARANTINING SMALLPOX

The opposition of several States of the Union to quarantining smallpox, and the fact that several of the States have abandoned such procedure, leads *The Medical Officer* of London to commend the abolishment of quarantine to some of the British health authorities.

SMALLPOX---QUARANTINE---PESTHOUSES

In many localities there is a strong tendency to evade diagnosis. This tendency on the part of both physicians and laity is due, mostly, to a fixed traditional belief that smallpox must of necessity be a very severe disease. Also, even when admitted to be smallpox, if the cases are of extremely mild type public opinion does not feel the necessity for rigid quarantine and so cases are not reported and the existence of the disease ignored until it spreads throughout an entire community.

The Board feels that in this question the attitude of the general public is in a rough degree practical and approaching the attitude of best medical opinion, although not in accord with the present laws. In other words, this Board is still of the opinion that the Minnesota and Montana method of dealing with smallpox is wise, viz., *to put the burden of protection upon the individual and not upon the public*, by removing strict quarantine and in its stead placarding premises and warning all exposed persons to get vaccinated. However, our neighboring commonwealth, British Columbia, still holds rigidly to the old view of strict quarantine, and our commercial relations with British

Columbia are so great that we cannot change our present regulations without her consent.

It is the firm conviction of the executive officers of this Board that no money spent for public health work is so nearly wasted as that expended for pesthouses, special guards, special fees, etc., for smallpox. If all this antiquated machinery could be done away with and the money used, for instance, in better isolation of typhoid fever or whooping cough, it would be much more judiciously expended.—(From the Eighth Biennial Report of the State Board of Health of Washington, 1909-1910, page 27; Dr. Elmer E. Heg, Secretary.)

The italicizing of this last paragraph is done by the NOTES, for it aptly expresses the opinions of the executive officers of the State Board of Health of Florida.

HEALING BY PRAYER

The subject of healing by prayer came up at the recent convention of the Protestant Episcopal Church of America. The commercial successes of Christian Science and, in a lesser degree, of the Emmanuel movement and other mental healing cults has led to an urgent demand on the part of some of the clerical members that the church should resume what one of the speakers described as "one of its most precious jewels," viz.: "the gift of the healing of the sick."

It is impossible to recognize in this assumption of a "gift" of healing inherent in the church, a very pregnant danger. Without any desire to enter the arena of theological controversy, we feel constrained to point out that, even on purely theological grounds, the injunction to "heal the sick" as a part of the official duties of the church was linked with the power to do other things that man in general admits his inability to do. "They shall take up serpents; and if they drink any deadly thing it shall not hurt them; they shall lay hands on the sick and they shall recover" (St. Mark xvi, 18). It is necessary, therefore, before the ritual exercise of such a "gift" of healing the sick be allowed to encroach on the means thereto bestowed by scientific knowledge on all modern nations, that those who claim it as a mere matter of authority should at least substantiate their claims under the terms of their own charter. *Fiat experimentum in corpore vili.* Before essaying the exercise upon others of the powers claimed by the substitution of the "gift" for the healing measures most approved at the present day—measures which civilized governments deem so important that practically all license the practitioner only after due ex-

amination and proof of capability—the would-be ecclesiastical healer should first be called on to demonstrate in his own person the possession of the "gift" by handling a rattlesnake and drinking a draught of prussic acid. Survival after these tests, clearly justified by the commission on which his claim to the "gift" of healing is based, would undoubtedly convince even the most skeptical that so far as the particular candidate was concerned he undoubtedly held a key to some, at least, of Hamlet's "more things in heaven and earth * * * than are dreamt of in our philosophy," and would concede to him a claim to inhabit a plane above the ordinary and therefore to be exempt from the restraints placed by law upon ordinary mortals.—*American Medicine.*

A PHASE OF RAILWAY SANITATION

The railroad dissemination of infectious material must receive a great deal more attention than it has, or our sanitarians and sanitary experts will be open to very severe criticism for neglecting such an active factor in the spread of disease. For many years physicians from time to time have called attention to the fact that the methods employed by the railroads in disposing of train sewage are contrary to every principle of sanitation—or decency. One has only to pause and consider the careless way the most dangerous material in the world is deposited along our railroad tracks to pollute our water-courses, or on drying to contaminate our atmosphere, to become thoroughly indignant that the railroads, great and powerful as they are, should be thus allowed to outrage every sense of right and cleanliness. Every one knows how substantially travel by railroad has grown within the past decade. The increased facilities and comforts have not only led healthy people to travel much more extensively, but have also made it possible for the sick and unwell to take long journeys. Consequently there is a large number of sick people constantly using the railroads and the present lack of provision for caring for the discharges of either the healthy or unhealthy means that an enormous amount of contaminating material is spread far and wide. It is indeed a serious problem, and the elaborate measures that are being enforced everywhere to prevent stream pollution, to maintain our thoroughfares as cleanly as possible and to dispose of sewage in ways that rob it of all danger, make it imperative that steps no less stringent should be promptly taken to stop the railroads from jeopardizing the health of communities in the manner we have described.

As a significant sign of the times, only recently an edict of the New York State Board of Health went forth that all closets on railroad trains should be locked while passing through the district of the Croton water shed. The wisdom of this is beyond all controversy, but since the dangers that made such precautions necessary or desirable in this one instance are constantly present, precautions no less effective are necessary and desirable all the time.

Certainly the question must come up for settlement in the very near future, and if the railroads will not voluntarily place themselves in harmony with right and propriety by suitable caring for train sewage instead of spreading it to the winds and adding so materially to every community's burden of disease, they should be forced to do their duty by law. Certainly the problem of rates is not important, for while this, it is true, touches the pocketbook, that of sewage disposal touches the health and everything pertaining to it. What a reflection it is finally on the morals of our railroad officials that they are willing to go on allowing their trains to scatter filth and disease broadcast when every instinct of decency cries out in protest. The real wonder is that the people who have recognized the relation of the railroads to some of our worst outbreaks of typhoid fever have been willing that an intolerable condition should continue so long.—*American Medicine*.

A MUSEUM OF SAFETY AND SANITATION

The proposed museum of safety and sanitation should be established in every city at once, for the people must be informed that the present wholesale destruction of usefulness, or of life itself, is in fact mostly preventable. It is a matter for State regulation, as the individual man seems to glory in taking risks. Miners, for instance, can not be trusted with the keys to their own safety lamps. Railroaders assume risks in spite of rules, though it is often charged that they are expected to do so, as the rules are to protect the company against damage suits. No matter how risky a job may be, an advertisement will bring abundant applicants. Similarly the most deplorable faults of sanitation are endured when they could easily be cured. Nevertheless, when the people learn that it is society's duty to protect them from harm, they will demand compensation if injured by preventable disease. The time is not so far off when it will be possible to collect damages for, say, typhoid fever. It will then be cheaper to prevent, and the museum of sanitation will bring on this preventive era much sooner. Old-age pensions are now accepted as a permanent public policy abroad

and we might as well prepare ourselves for the time when invalids of all kinds are pensioned—indeed, they now need help far more than most old people who have been able to save up for the rainy days. Let us have the museum of sanitation at once to show how we can and must prevent illness and death. People must be saved in spite of their ignorance, and only those permitted to die who through sheer foolishness invite disease, like the anti-vaccinationists.—*American Medicine*.

LOOSE AGAIN

Because a woman, crazy about cats, subsidized a lawyer and a press-agent for an indefinite length of time, the State of New York must face every year some bill aimed at scientific research. There are various organizations of this type, varying in the amount of absurdity and of harm. The Society for the Prevention of Cruelty to Animals has possibly put an end to its usefulness by swinging over to the anti-experiment camp. The act which has been introduced this year shows that the American societies, defeated again and again, have taken a lesson from England and are now asking for investigation instead of restriction. Pasteur and Koch could not have done their work as the British law stands today. Of course, investigation is a plausible term. As a matter of fact, what the opponents of scientific progress object to is experiments which are fully set forth in scientific publications. Investigation would be a mere form of sentimental agitation. The scientists make no concealment of what they are doing. On the contrary, they give it all the publicity they can obtain. We can hardly believe that the present is a favorable moment for these dangerous sentimentalists to succeed. The death-rate from meningitis only two or three years ago was from seventy to eighty per cent. Now the rate, counting all cases, is twenty-five per cent., and in the cases where the serum is given early it runs as low as six to eight per cent. Among those cases which were called cured before the serum was discovered were the long-drawn-out and most painful ones which left imbecility or some frightful deformity. These cases now have absolutely disappeared. As this triumph over one of the most terrible and agonizing diseases, from which the principal sufferers are children, is so fresh in the mind of the public, it hardly seems possible that a backward step should be taken. Dr. Flexner and the Rockefeller Institute, in conquering meningitis, used twenty-five monkeys and about two hundred guinea-pigs and rabbits.

There is one dreadful and destructive disease which men hesitate to name. It struck down not only the guilty, but millions of innocent women and millions of innocent children. That disease has within a few months been mastered by a drug, the most perfect drug antidote in the world. The cost of conquering this disease was a few rabbits and a few mice.

Dr. Carrel, only a short time ago, perfected the delicate operation of transfusion of blood, which is now saving many lives. The cost here was a few kittens; the societies would much rather have had the kittens put into a bag and thrown into the river.

Infantile paralysis filled this country with terror a few months ago. The experiments which have taken place since then mean that this disease will be handled much better next summer, and there is every promise that before long

it will be exterminated. Doubtless in the process a few animals will meet their death in the service of science, instead of in the ordinary form. There are a number of mice now suffering from cancer in order that one of the most deadly and most painful of diseases may be conquered. The Society for the Prevention of Cruelty to Animals ought to bend all of its energies to stopping the men of science from making any use of these mice. If they do not successfully interfere, it is likely that cancer may be conquered as thoroughly as diphtheria, which has been reduced from one of the most destructive scourges of children to a point where, if the antitoxin is taken in the first twenty-four hours, the death-rate is only about one and a half per cent.

A fight is going on against the gipsy moth, the hookworm, and other well-meaning inhabitants of the globe. We suggest that bills be introduced by humanitarians into all the Legislatures to protect these guiltless creatures. Rats are unpopular just now because of the fact that they carry the bubonic plague and other diseases. There ought to be organized at once a society for the protection of rodents.

The more reasonably these bills may be made to sound, the more chance there is that they may accomplish some unspeakably fatal blow against the human race. There are laws now in plenty forbidding cruelty. The great institutions which are specially aimed at by the cranks, like the Rockefeller Institute, are in the hands of men who are spending their lives in the cause of solid and real kindness. Shall we take away from splendidly equipped experts of devoted character the right to judge what experiments are necessary, and put the question into the hands of some fool committee made up of persons in whom hysterical excitement takes the place of knowledge?—*Collier's Weekly, March 4, 1911.*

EXAMINATION FOR EMBALMER'S LICENSE

The spring examination for embalmer's license will be conducted at the office of the State Board of Health, Dyal-Upchurch Building, on Saturday, May 13, 1911, at 10 o'clock a. m.

The State Board of Health believes that bodies which are to be transported from point to point in this State or from this State to other States should be embalmed in a proper manner and only by those who have shown they are qualified for this work. The examination is therefore conducted along practical lines. All applicants are required to present evidence to the Board of Examiners of having had two years' apprenticeship under a licensed embalmer or in an embalming establishment operating under a license of this or another State, before being allowed to take the examination. The examination question will give the applicant an opportunity to present his knowledge of the general anatomy of the human body and the natural processes by which dissolution of organic matter is brought about, the methods of controlling these processes, as well as his ability to demonstrate a knowledge of practical embalming. The examination is rigid and

only those making creditable percentages (of 75% or over) will be granted license.

The Board of Embalmers' Examiners is composed of the State Health Officer, the senior Bacteriologist of the State Board of Health, and the Assistant State Health Officer detailed for duty at the Executive Office.

THE PHARMACY LAWS OF FLORIDA

TAMPA, FLA., February 23, 1911.

Editor Florida Health Notes, Jacksonville, Fla.

DEAR SIR: I ask that, for the benefit of the public health and for the information of the retail druggists of Florida, you will give space in your valuable paper to the following synopsis of our Pharmacy Laws and the duties and objects of our Board of Pharmacy:

The Florida Pharmacy Law was enacted in 1888 as a result of the activity of several of our prominent retail druggists. The law has been on the statute book since its passage. It has been amended and modified from time to time.

It has been said that a good law without execution is like an unperformed promise. The Florida law was never quite a dead letter, for the rank and file of pharmacists, wherever found, are law-abiding citizens and comply with the legal regulations affecting them. The observation of the Florida law was, until recently, largely a matter of volition. Practically all of the competent pharmacists registered, while many of the incompetent went on in the even tenor of their way as if no law existed. The expense of maintaining the executive machinery was borne by those who heeded the provision of the law, but was not sufficient to provide funds for the full enforcement of the law and protect the public from incompetent persons posing as pharmacists.

Conditions continued as have been outlined until June 20, 1909, when important amendments were introduced by the Joint Legislative Committee of the Board of Pharmacy and the State Pharmaceutical Association and, being adopted by the legislature of that year, became effective. The bill was passed practically as presented and thus represents the judgment and wishes of the organized pharmacists of the State of Florida. On June 1st of each year the certificates of registration expire and a fee of one dollar is charged for renewal. This section is not peculiar to the Florida law, but is common to practically all of the State pharmacy laws. The money thus raised creates a fund to be used in meeting the expense of enforcing the law. It enables the board to take the initiative in prosecutions and to retain special counsel in court cases. It is the provision the lack of which weakened the old law and rendered impotent all of the amendments since 1888.

Although the new law went into effect in June, 1909, it was not until the past few months that the board has been in a position to push the enforcement of the act. It required a year to organize plans and map out the work. Furthermore, the board has given every one ample time to comply with the law. The

members of the board being practical retail pharmacists, they understand fully the trials and tribulations of the calling and sympathize with all who desire to live up to the law. The secretary of the board has issued circulars, made use of the good offices of the jobbers and used the columns of the pharmaceutical press to acquaint those who retail or compound medicines in Florida with the provisions of the pharmacy law of the State. In fact, the board has done all that could be expected and much more than the law or custom requires, in order to give publicity to the law and explain the duty of those whom it affects.

The Board now has a card index record of the law-abiding dealers in medicines in Florida and has recently set about the work of locating the ones who, through ignorance, neglect, or in a wilful manner, are violating the pharmacy law. The entire State will be systematically and carefully canvassed and the facts obtained recorded for use in prosecutions. It is surprising how many seem to think that laws, like New Year's resolutions, are made to be broken. They forget, that "all beings have their laws, the material world has its laws, superior intelligences have their laws, the beasts have their laws and man has his laws." One tricky proprietor showed the inspector his internal revenue tax stamp as a retail tobacco dealer as evidence that he was registered as a pharmacist. Another said he would register when he "got good and ready." A third one declared he would fight the law. Perhaps he never heard the advice of La Bruyere, who said: "Avoid law-suits beyond all things; they influence your conscience, impair your health and dissipate your property." One pharmacist said that he must make a living and no law could prevent him from doing so. Another party declared he would take down the sign and no longer call the place a "drug store," so it would not come under the law. Perhaps the most fortunate unregistered dealer is the one who was "too busy to answer questions." We surmise that he will have time to respond to court summons.

The canvass being made by the Board is causing some of the violators of the law to think in a serious manner. Those who have diplomas or certificates from other State boards or have had four years' experience in a drug-store and can pass a preliminary examination are applying for temporary certificates, which are good until the next meeting of the Board and for which a fee of \$2.50 is charged. Some are looking for a "pull with the Board of Pharmacy." The average person who runs a drug-store contrary to law seems to think the jobbers, manufacturers and cigar men with whom he does business should find a way of protecting him from the law. He expects the pharmaceutical journals to which he subscribes to furnish formulas for a serum of immunity which will render him proof against prosecutions.

Some of the pharmacists in Florida, and especially those in the drug business, who are not registered, may feel that the Board is unnecessarily active in carrying out the provisions of the law. It is but natural that after living under an inoperative pharmacy law for a quarter of a century, the new order of affairs should by contrast attract much attention and develop some criticism. We can say to all who feel inclined to criticize that they should be thankful that the law is being administered with so much consideration. In some States the Board of Pharmacy is a political machine, pure and simple. Florida pharmacists have in the past escaped the disagreeable consequences of too much politics and too little pharmacy in board matters, and it is to be hoped that such will

continue for many years to come. I have all along urged pharmacists to become active in politics, but all pharmacists should discourage politicians in pharmacy.

We should all bear in mind that our laws are primarily for the protection of the public, drugs, poisons and physicians' prescriptions must be dispensed only by competent, careful druggists, who have proven themselves such by coming before the State Board of Pharmacy and passing a satisfactory examination.

It is the duty of the Board of Pharmacy to see that the laws are observed and it is our aim to elevate the practice of pharmacy to a higher plane. Our law needs further improvement and several important amendments have been drawn up. In this we ask the co-operation of all good citizens and pharmacists in our fair State.

E. BERGER,

President Florida State Board of Pharmacy.

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The insect we now call the "house-fly" should in the future be termed the "typhoid-fly," in order to call direct attention to the danger of allowing it to continue to breed unchecked.—L. O. Howard.

THE CAMPAIGN AGAINST THE TYPHOID FLY

The investigation conducted by Drs. Reed, Vaughn and Shakespeare during the Spanish-American War of 1898, and their subsequent publicity directed the attention of health organizations, the medical profession, and the general citizenship toward the house-fly as a disseminator of disease, especially of typhoid fever. The sanitarians of the United States took hold of the situation and kept constantly before the public the danger of allowing the fly to come in contact with foodstuffs; stating through the newspapers, bulletins and circular letters its habits and the methods by which it was a carrier of disease.

When the FLORIDA HEALTH NOTES, after several years dozing, was revived in July, 1906, in its first issue the fly was dealt with, and an effort has since been made to continually keep this subject in the minds of the readers of the NOTES.

In 1908 it was realized that in order to reach a large number of the citizens in an educational campaign against the fly, greater success would be assured by means of a poster picturing the evolution of the fly and stating the danger to be apprehended, with methods of preventing fly-breeding. In August of that year the poster "From Flies and Filth to Food and Fever" was designed by the State Board of Health and very soon thereafter was distributed throughout the State. The poster was received very kindly by the public, and also attracted attention throughout the United States; many State and city boards of health and health organizations (as well as disinfectant manufacturers and wire-screen concerns) reproducing it either wholly or in part for their local use.

The poster has been printed in colors and on cardboard and cloth. It was also translated into the Spanish language and an edition in Spanish distributed among the Latin citizenship in Key West and Tampa. The first Spanish edition was published in May, 1909, and distributed to the "readers" in the cigar factories of the State, as well as other literature relating to tuberculosis and public health questions. The poster has been reprinted many times for this office and requests have continued to be received for copies since it was first distributed.

Dr. L. O. Howard, Entomologist of the United States Department of Agriculture, has been especially active in a study of the fly, and his statement, "The insect we now call the 'house-fly' should in the future be termed the 'typhoid-fly,' in order to call direct attention to the danger of allowing it to continue to breed unchecked" (which we use for

our monthly quotation), has resulted in the adoption of this name for the fly in almost all parts of the United States.

In March, 1910, the American Civic Association included in its work a campaign against the typhoid-fly and appointed a Fly-fighting Committee, of which Mr. Edward Hatch, Jr., of New York, was made chairman. The committee has been active in this work, furnishing the press with "fly" stories, arranging for motion-picture reels, and distributing most effective circulars and bulletins throughout the United States. The Civic Association, through the chairman of the Fly-fighting Committee, is now offering prizes to school children for essays on the typhoid-fly. Several cities are taking up this feature of the work. The City Health Officer of Jacksonville conducted such a contest in the schools of the city last fall and most excellent little treatises on the subject were furnished by a number of the school children.

The Chicago *Daily Tribune* deserves special mention for its co-operation in this campaign, one of the cartoons from that paper being reproduced in this issue of the NOTES.

Among the more interesting features of the campaign is the use of the motion-picture film showing "The Fly Pest" and "The Acrobatic Fly." The State Board of Health of Florida purchased one of the films in April, 1910, and since that time it has been used to good advantage in motion-picture theatres in many of the cities of the State.

The result of all this work has been to arouse public sentiment as to the necessity for exercising precautions to prevent not only fly-breeding but the dissemination of disease by this pest. The necessity for regulation led the State Board of Health, in the fall of 1910, to adopt somewhat stringent rules to govern the maintenance of livery-stables (where 95 per cent of the flies are hatched), and to require that dining-rooms of hotels, restaurants and boarding-houses should be screened. While it is known of course that the public as a whole has not as yet realized the danger of the fly and therefore has not hastened to comply with the regulations and advice of the State Board of Health, yet it is found that in all parts of the State the advice is being heeded, and, as noted in these columns some months ago, it is especially gratifying to find that this advice is being followed in many instances by our colored citizens.

The lecture system of the Board has grown from year to year, and it has been the rule of the Assistant State Health Officers in their work to place special emphasis upon the dangers of the typhoid-fly. Occasionally, where formal lectures are arranged for, stereopticon pictures are used to illustrate the subject.

That "season" of the year which brings with it the greatest number of mosquitoes and flies, and therefore malarial and typhoid fevers, is now at hand; and it leads the Notes to believe that it is desirable to impress upon the citizenship of Florida the necessity of precautions to be exercised in preventing the breeding and biting of these insects and the prevention of the diseases they transmit.



—McCutcheon, in *Chicago Daily Tribune*, March 15, 1911.

THE TYPHOID-FLY

Flies are disease carriers
 Live and breed in all kinds of filth
 Infect food and drink by germ-laden feet
 Each female fly can lay 150 eggs
 Should be kept out of dwellings.

Flies breed in horse manure, cow dung, decaying vegetables, garbage of all descriptions, dead animals and human excrement.

Flies are Nature's scavengers, it is true, filling the same function as some bacteria do, but become an intolerable nuisance and DANGER when entering human dwellings and contaminating foods.

The presence of flies is a direct evidence of careless housekeeping and of the existence of filth in some form about the premises.

Remember that when and where *absolute* cleanliness prevails there will be no flies.

Look daily after the garbage cans. See that they are carefully sprinkled with lime or kerosene oil and effectively covered.

Do the same thing to manure heaps, and remove all manure from stables every three or four days, and when removed, cover with lime and sand.

Look carefully after the *cupidors*. They require constant attention. This is particularly true in hotels, boarding-houses, railroad stations, and in fact, wherever people congregate in large numbers.

Flies are fond of hovering around *cupidors* and feasting on tuberculosis sputum. The specks of flies contain live tubercle bacilli after they have eaten tuberculous sputum, showing that the bacilli will pass through the digestive tract of the fly in an active infective state.

Flies carry on their mouths (proboscis) and on their legs putrefying and disease germs, on which they have recently fed, and then crawl over food, infecting it, unless shut out by screens.

Keep flies from the SICK, especially those ill with communicable diseases. If the room is not screened the patient should be treated under a net, both for safety to others as well as for individual comfort.

SCREEN ALL FOOD. Apply this rule, not only to food prepared at home, but to foodstuffs offered for sale, and especially fruits, salads and all other foods which do not require to be cooked. For—

Flies crawl over fruit when exposed for sale, unguarded by screens, and people generally do not wash fruit before eating it. This is a fruitful source of human infection, particularly if a case of typhoid fever nearby is being carelessly handled.

Don't forget that flies will carry the bacilli of typhoid fever from the stools of the patient (if left exposed and not disinfected), if given an opportunity, to the food in the kitchen and dining-room. This is no conjecture, for it was proved during the Spanish-American War.

The great secret of how to get rid of flies is CLEANLINESS, and by screening all openings at the home, especially the kitchen and dining-room.

The following parody on a familiar poem is printed on cards and circulated in the New York public schools:

Mary had a little cold
That started in her head,
And everywhere that Mary went
That cold was sure to spread.

It followed her to school one day
(There wasn't any rule);
It made the children cough and sneeze
To have that cold in school.

The teacher tried to drive it out;
She tried hard, but—kerchoo!—
It didn't do a bit of good,
For teacher caught it, too.

"We have found," says Dr. Allen, who composed the parody, "that a single jingle like this will become much more firmly impressed on the childish mind than would any collection of health commandments and texts, printed on cards and distributed. The latter form of literature would not be comprehended by many of the duller pupils, while the others would not see in it the significance a grown person would."

"The parody, on the other hand, first amuses the child and in that way rivets his attention on the words. By constant repetition the lesson for which the rhyme was intended is at last borne home to him in a manner he will never forget."

Writing on colds, Dr. A. P. Reed says that it is understood their immediate cause is an infection from impure air, dust, etc. The doctor adds that, owing to their contagious character, colds generally go from one to another of the same family or association, as in schools, stores, offices and wherever people are massed, this massing of people being always a menace requiring extra care to avoid deleterious results. Whenever a city neglects to sprinkle its streets it has been noticed that nasal and throat irritations, leading up to catarrh, acute and chronic, are much more prevalent.—*Bulletin, Chicago Department of Health, April 8.*

A DIVISION OF SANITARY ENGINEERING

The State Board of Health is constantly receiving requests from the citizens and the smaller communities of Florida for expert advice in regard to the construction of plants for the sanitary disposal of sewage and domestic wastes and the installation of public water-supply systems. While these requests have been given the best attention possible by the State Health Officer and his assistants, yet the Board has often realized that a necessity exists for an expert to be on the ground and give advice that might relate to each individual instance. The question therefore presented itself to the Board, as it has in previous years, when in annual session February 15th, whether or not the Health Department of the State should have as a feature of its work a Division of Sanitary Engineering, not only to give more and better attention to these matters, but to furnish preliminary engineering instruction and information. The Board being impressed with the necessity for such a supervision, instructed the State Health Officer to have drafted a bill to be placed before the legislature, which, if adopted, would provide for such a division. The proposed bill is published in this issue of the NOTES, a copy of it having already been furnished at the convening of the Legislature, to the President of the Senate and the Speaker of the House. It has been introduced in each branch of the Legislature and referred to the Committees on Public Health. Copies of the bill were also furnished to many of the newspapers throughout the State and published by them, in order that the citizens of the State might be fully acquainted with the action of the Board. The proposed bill is as follows:

A BILL

To be Entitled An Act to Authorize the State Board of Health of Florida to Employ a Sanitary Engineer Whenever the Said Board May Consider the Necessities of Sanitation in and About the State May so Require and to Further Provide for His Compensation.

Be it enacted by the Legislature of the State of Florida:

SECTION 1. That the State Board of Health of Florida be and is hereby authorized to employ or engage the services of a Sanitary Engineer, whose expert knowledge in the subject shall be determined by the State Health Officer, whenever in the opinion of the State Health Officer the necessities of sanitation in and about the State may require an expert opinion and decision in regard to the construction of sewers, drainage of a sanitary character, the disposal of sewerage and domestic wastes, or the institution of potable water supply for any of the towns or cities of the State of Florida.

SEC. 2. That the Sanitary Engineer as provided for by Section 1 of this Act shall only be employed at such times and such periods as in the judgment of the State Health Officer, his expert services may be required.

SEC. 3. That the compensation for services of the Sanitary Engineer provided for in Sections 1 and 2 of this Act shall be fixed by the State Health Officer with the approval of the President of the State Board of Health.

SEC. 4. That all laws or parts of laws in conflict with any of the provisions of this Act are hereby repealed.

SEC. 5. That this Act shall take effect upon approval by the Governor.

From this it will be seen that while the division is desired as an addition to the work of the Board, yet it is not anticipated that a sanitary engineer shall be employed continuously by the Board but shall be engaged only at those times that his services are in demand. It is thought that this will not only be an economical method of administration, but will fulfill all requirements that may be presented for a number of years.

It is interesting to quote in this connection from the *Bulletin of the New York State Department of Health*. In the January, 1910, issue, Mr. Theodore Horton, Chief Engineer for the Department, says:

If we had the opportunity to review the sanitary history of all our civilized communities, we should undoubtedly be surprised to find how similar the experience of each has been; how nearly every one has had to face the same problems which concern public health, especially the problem of disposal of domestic and municipal wastes.

In most cases, these communities have at times, unfortunately, through lack of knowledge and experience of their own, or of other communities, or through lack of failure to seek the advice of some central authority such as the State Department of Health, attempted to solve problems without due regard to proper sanitary principles.

In 1907 and in 1909 the State Board of Health recommended to the Legislature and presented bills, providing for a Division of Sanitary Engineering.

At the 1909 session of the Legislature the Board was given authority "to regulate the method of disposition of garbage or sewage and any other refuse matter in or near any incorporated city or town or unincorporated town or village of this State; * * * to supervise and regulate municipal and county sanitation, not provided for by general rules and regulations for the purpose of suppressing nuisances and communicable, contagious and infectious diseases and other dangers to the public life and health." While this granting of authority in municipal sanitation has resulted in the Board exercising supervision in several instances in the past two years, yet the need for expert sanitary engineering advice and instruction is often felt, and it was not thought that the Board had authority to secure such expert and special advisory service until the Legislature approved of the extension of the Board's personnel.

The communities of Florida are rapidly developing into villages, the villages are growing to towns, the towns within a few years have increased to cities. Each in the past, with some few exceptions (especially among the cities), have established their sanitary conveniences, sometimes without due regard for their own health, and often without due regard for the good health of other communities. The smaller communities and towns of the State, attempting, for the first time in their history, to install sanitary systems, are handicapped by lack of experience of their own, by poor access to the experience of others, and often by lack of funds to obtain the advice necessary.

In this connection, there is then need for a State officer, specially qualified in this work, to confer with and advise the authorities of the smaller communities. There should be, of course, no necessity for the Board to furnish these communities with engineering services other than general advice and outlining of policies, and the establishment of a uniform policy in such matters, based upon such conditions as exist in Florida and which effect water-supply or sewage disposal systems.

The control and prevention of typhoid fever and other water-borne diseases are problems of primary importance in sanitary engineering. The work is almost altogether one of preventing and regulating the pollution of water-supplies and the purification of water courses that can be dangerously polluted. Some laws on the statute books of Florida which touch upon this subject tell the people what they *must not*

do, but there should be some central authority to advise what they can do, and not allow them to go ahead and in an effort to follow the law do something which is detrimental to their health.

The laboratories maintained by the State Board of Health have, as a part of their routine work, the bacteriological examination of public and private water-supply systems, but the collection of specimens of water for examination, and sanitary surveys and investigations into drainage, oftentimes are more important than what can be learned from the laboratory examination. The cooperation therefore of the laboratory and Sanitary Engineering Divisions would result in an increased benefit to prevailing health conditions.

The State Board of Health has had unpleasant experiences occasionally with resort-towns, both with those catering to winter visitors and those entertaining the summer visitors. Many of the sanitary ills existing in these places could be corrected if their municipal officials had the advice of an expert to follow in arranging simple methods to dispose of wastes. Many persons visiting these resorts are from other portions of our own State and it is plainly due them that they shall be protected and their health safeguarded. With a properly equipped Sanitary Engineering Division the Board would find a demand for such services.

It is believed that the State Board of Health, through an expert sanitary engineer, would be in position to cooperate with the Florida Geological Survey in an effort, not only to determine the course of the underground water streams, but to ascertain the danger to be apprehended from a disposal of sewage through natural and artificial wells as is practiced in some counties. It is believed from the evidence at hand that this latter is not only a dangerous method of sewage disposal but that in the future some municipalities will only too sadly realize their mistake. With a sanitary engineer, and the authority the Board has to supervise municipal and county sanitation, such methods, when found to be faulty from a sanitary standpoint, could be at once corrected. The State of Florida cannot depend upon investigations made in the North or the East or the far West, by sanitary engineers in those portions of the States, upon which to base action in supervising municipal sanitation in this State. The conditions there are different from ours; the conditions here must have special study; and then, too, the results of local experiments will have far more weight with municipalities and citizens when made by local engineers than if they are advised to pursue a line of action based upon experiments or ascer-

tained facts presented by some far-away person entirely unacquainted with the condition that may be of interest.

One of the duties of the division would probably be the approval or disapproval of plans for installation of sewage disposal and water-supply system. This would be an excellent work, for it would insure to the interested community a system best suited to their individual conditions and needs, and would prevent establishing a system that would endanger the health of their citizens. And, too, this will be found to result in insuring the building of systems that are planned to be economical and efficient.

And finally, it should be remembered that such a division, to be effective, must be an integral part of the State Board of Health organization, and must be independent of other State departments. Any arrangement to regularly refer questions of this sort to an engineering authority outside the jurisdiction of the Board would be as unwieldy as it would be unsatisfactory. The people of Florida look to the State Board of Health for advice in matters pertaining to public health. The safeguarding of water-supplies, the disposal of sewage, and sanitary engineering in general, are so inextricably mixed up with public health questions and with the work of the Board, that it is well-nigh impossible and undesirable to attempt to separate them. In order to intelligently and helpfully answer the questions that are coming and will continue to come before it, this Board is in need, not of a man trained in general engineering practice, but of a man specially trained in biology and that branch of engineering that has for its object the safeguarding and preserving of public health.

HOW TO PREVENT MALARIA—NO MOSQUITOES, NO MALARIA

Malarial fevers are transmitted by MOSQUITOES (the *Anopheles*), and by no other means is the infection spread.

Persons contract the disease by being bitten by mosquitoes that have previously bitten a malaria patient.

It is therefore important that persons sick with malaria should have mosquito-nets over their beds and their rooms should be screened to prevent mosquitoes from biting the patient and transmitting the infection to well persons.

It is important, too, that well persons should adopt means to prevent mosquito-breeding and to prevent being bitten by mosquitoes.

INFORMATION ABOUT SCREENING.

The netting used should have meshes fine enough to prevent the passage of mosquitoes (at least 16-18 meshes to the inch).

It is important to screen the windows and doors of the house. It is doubly important to screen the beds of fever patients.

Mosquitoes can bite through mosquito-nets when any part of the patient's body is in contact with the netting.

Frequent examinations should be made to see that there are no torn places in the netting or that no mosquitoes have found a lodgment inside.

The netting should be well tucked in to keep mosquitoes from entering.

If mosquitoes are found within the netting they should be killed inside and not merely driven or shaken out.

MEANS OF DESTROYING MOSQUITOES.

Mosquitoes live in the vicinity in which they breed. They do not often fly a long distance.

Mosquitoes breed only in water—usually in artificial collections of fresh water.

The young mosquito, or wiggler, lives in water at least seven to twelve days.

Although the wigglers live in water, they must come frequently to the surface to breathe.

Coal oil on the surface of the water prevents the wigglers from breathing.

Destroy the breeding-places and you will destroy the mosquitoes.

Empty the water from all tubs, buckets, cans, flower-pots, vases, once every forty-eight hours.

Fill or drain all pools, ditches, unfilled postholes, and the like.

Change regularly every day all water needed in chicken coops, kennels, etc.

Treat with coal oil all standing water which cannot be screened or drained (one ounce of oil will cover 15 square feet of surface). The oil does not affect the water for use if the water is drawn from below.

Where oil is applied to standing water it must be distributed evenly over the surface.

Put fine wire netting over cisterns, wells, and tanks of water in every-day use.

Places in which it is undesirable to put oil, such as watering-troughs for stock, fountains, etc., can be kept free from wiggler by putting in goldfish or minnows.

Clean away all weeds, grass, and bushes about ditches, ponds, and other possible breeding-places, since these afford a hiding-place for the mosquitoes.

Clear up vacant lots and back yards of all cans, tins, bottles, and rubbish.

First do away with, or treat, all places where mosquitoes are known to breed, and then begin to work on places where they might breed.

Inspect and treat with coal oil, gutters, culverts, ditches, manholes, catching basins, etc., along the roadside. Manhole covers should be screened.

Houses can be cleared of mosquitoes by burning one pound of insect powder or two pounds of sulphur to 1,000 cubic feet of space. The mosquitoes will fall to the floor and should be collected and burned. It is preferable, however, to search out and kill mosquitoes in the early morning when they will be found hiding in dark corners of the house.

Success in mosquito destruction depends upon the cooperation of the members of the entire community.

While the infection of malaria is carried by a single species of mosquito (the *Anopheles*), to insure its destruction it is necessary to destroy all mosquitoes.

In those places where malaria prevails both individuals and communities have an effective method of protecting themselves as indicated above. Use the mosquito-bar over all cases of malaria. Destroy all mosquitoes.

QUOTED FROM EXCHANGES

We doff our hats to the exchange which printed this spring poem:

"We
De-
Spise
Flies."

—Chipley Banner, March 23, 1911.

Fight filth, flies and fevers. Prevention is better than cure. It is easier to keep well than to get well. The stable fly is a dirty, dangerous enemy to health and life. Kill him before he is born.—*DeSoto County News, March 30, 1911.*

FIGHTING THE MOSQUITO.

Over in Pensacola the medical association has taken up an active campaign for the extermination of mosquitoes, beginning this early in order to prevent the insects from getting a head start. By very little trouble the people of Miami may guard against having the pests this summer and should take up the matter now, seriously. Mosquito harbors should be removed—beginning with the half-filled can of water in the back yard, the brush heap, the weeds in the lot "next door," the uncovered rain-water barrel, the pool of water by the dripping hose faucet. Even though a horde of mosquitoes should be blown into Miami from the Keys, there is no reason for giving them sustenance and breeding-places if each citizen does his duty.—*Miami Metropolis.*

THE HOUSEFLY AND SICKNESS.

Several days ago the physicians of this city decided to try to create public sentiment against the mosquitoes and flies and attempt to free the city from these dangerous and annoying pests. This is a movement in the right direction and has already been delayed too long for the good of the general public. Already the public health has been endangered and many have been made to suffer because of our failure to destroy the breeding-places of these insects.

Between the two, it is generally conceded that the fly is the lesser evil, but the fly is easier to destroy, for it can be eliminated by cleanliness around the house, while it takes work by the people and by the city to make mosquitoes impossible. In regard to the fly the United States department of agriculture gives the following warning:

"We have shown that the typhoid or housefly is a general and common carrier of pathogenic bacteria. It may carry typhoid fever, Asiatic cholera, dysentery, cholera morbus and other intestinal diseases; it may carry the bacilli of tuberculosis and certain eye diseases. It is everywhere present and it is disposed of with comparative ease. It is the duty of every individual to guard so far as possible against the occurrence of flies on his premises. It is the duty of every community through its board of health to spend money in the warfare against this enemy of mankind. This duty is as pronounced as though the community were attacked by a band of ravenous wolves."

This will give the people of Pensacola some idea of what the nasty and annoying housefly will do toward destroying the healthfulness of

a community. The last sentence is true and the city boards should do something and do it at once.—*Pensacola Journal, April 9, 1911.*

MALARIA AND AGRICULTURE

We note in the *Indian Public Health and Municipal Journal* of Lahore, Punjab, (January), an interesting observation on the subject of scientific agriculture and prevention of mosquito-breeding quoted from and based upon an article by Dr. Spencer in the *Transvaal Medical Journal*. Proof is cited in some countries that malaria disappears before the advance of scientific agriculture. Where crude and unscientific methods of cultivation are employed an increase in the prevalence of malaria is found. "A principle of scientific cultivation is the preservation of subsoil moisture by the prevention of surface evaporation. The method necessitates the regular use of the cultivator or Acme harrow after rain or irrigation so that the land is left covered with a thick and even mulch of loose soil. In cultivated soil there are found holes and irregularities which hold water and serve as breeding-places of the malaria (*Anopheles*) mosquito. There are no such breeding-places in land which has been cultivated scientifically; the beautifully even mulch abolishes them. * * *

"A second lesson is made evident by these facts. With the extension of maize and fruit growing it is possible that irrigation will be introduced into those dry districts where malaria has not prevailed, solely owing to the lack of breeding-places for *Anopheles*. Beginners in the practice of irrigation * * * are apt to forget that such crops as maize and fruit under irrigation require also adequate drainage. Stagnant pools and even a water-logged soil may eventually be caused by irrigation when proper cultivation is not carried out or when drainage is not provided; especially, if as is frequently the case, the irrigation shows *trop de zèle* on the part of the farmer.

"Thus the *Anopheles* may conceivably be introduced into new districts in the wake of extended agriculture. Where the nature of the crop—as in the case of sugarcane—requires the permanent presence of flumes, trenches, and canals, efficient anti-malaria measures are necessary, such as attention to the construction of the canals, careful removal of weeds, frequent flushing, and stocking with fish which consume the larvae, pupae and eggs of *Anopheles*.

"The conclusion may be suggested that education in the suitable methods of malaria prevention should go hand in hand with education in scientific agriculture in this country."

These interesting observations and conclusions appeal to this office as possibly being of value to our Florida farmers, for it is a well-known fact that malarial fevers prevail in many of the farming sections, and if scientific cultivation of the soil will do away with breeding-places of mosquitoes, especially the *Anopheles*, then it would seem wise for the farmer to adopt such methods, for it will mean a lessening of the prevalence of malaria—a prevention of sickness—and therefore a gain from a financial viewpoint.

PASTEUR TREATMENT FOR RABIES

Modification of Method of Distribution.

The State Board of Health announced, on April 13th, that it had made a modification of its plan for furnishing vaccine (Pasteur treatment) for preventing rabies in the human. Hereafter those persons who are financially able will be expected to pay for the vaccine. This does not mean, however, that other citizens of the State cannot procure the treatment in the same manner that it is now furnished.

The Board will continue to order the treatment as in the past, upon the request of physicians, who will guarantee the price of the vaccine for those who can pay for it. Other persons will be furnished with the vaccine on the same general plan that diphtheria antitoxin is furnished to those patients unable to pay such charges.

The treatment will still be administered at home by the family physician or by a physician designated by the State Board of Health, as has been the method for nearly three years.

This modification is to continue only until such time as the State Board of Health can manufacture its own vaccines. As soon as its building in Jacksonville is finished the Board will prepare this vaccine in its own laboratories and be in position to furnish it free of any cost to the citizens of the State.

It has been the policy of the State Board of Health, in its efforts to prevent the occurrence and spread of communicable diseases, to make possible the proper treatment of dangerous infectious diseases where the cost to the patient would usually be prohibitive, and to advise the public of the State as to methods to be adopted under the circumstances. Therefore, when an exception has been made in the mat-

ter of the treatment of diseases, especially when the character and cost of such treatment made it a hardship upon the physician to procure it or for the patient to pay the charges, the Board has made an effort, and has usually been successful, in arranging for furnishing and paying for these preventive methods. This has saved the State many valuable lives and also prevented, in instances, the spread of dangerous communicable diseases. The costs which accrue from such methods are included in the expenses of the Board and are paid by the citizens in general through the medium of taxation.

In 1907, and even during the previous year, the State Board of Health was impressed with the fact that rabies was becoming more and more a menace to the public health on account of the increase in occurrence and number of cases, and this applied to the United States at large as well as to Florida. This increase was not alarming, but it was of such an extent as to demand consideration from public health officials, and it was decided necessary to place within easy reach of the public a positive preventive of rabies in the human. In November, 1907, the State Board of Health announced that it had perfected a plan whereby the anti-rabic vaccine, popularly known as the Pasteur treatment, would be administered, free of cost, at the offices of the Board at Jacksonville, to those persons who were bitten by rabid animals.

This continued until June, 1909, when an arrangement was made whereby the anti-rabic vaccine should be sent by mail each day to physicians in any part of the State and administered to the patient at his home. The first method eliminated sending the patient to distant parts of the United States to procure the treatment at great expense, not only for the treatment itself, but for transportation and hotel bills; in some cases the cost of the treatment and care being secured through public subscription. The second change in the method of furnishing the treatment, in June, 1909, made it still less expensive for the patient, in that he or she could remain at home, and in fact continue their daily duties, the treatment being administered daily by the physician. The physician collected the fees for his services, and the State paid for the vaccine. Under these methods the State in 1908 administered the vaccine to nineteen persons who had been bitten by rabid animals; during 1909 the treatment was furnished for forty-eight persons, some being treated at the office of the State Board of Health, and others by their physicians at home; and in 1910 thirty-eight persons took advantage of the treatment at their homes.

Whenever it becomes a comparatively simple matter for this character of preventive medicine to be obtained by the physicians of the State, and when placed within the purchasing power of the average individual, it is not believed to be obligatory upon the State Board of Health to longer continue such a plan. However, the modification in the method of furnishing the anti-rabic vaccine, which goes into effect today, is believed will be attended with the same satisfactory results that have been realized for the past three years. This modification means simply that those persons who are unable from a monetary standpoint to pay for the vaccine will be furnished with it free of charge; but there are persons who are in position to relieve the State of this charge and it is felt that they should bear the expense. Especially is this true when it is considered that the Board will have this vaccine furnished to the citizens at a price within the reach of many. There is, then, no reason why persons who have been bitten by rabid animals should not conveniently and economically procure the treatment, remaining at home, and having it administered.

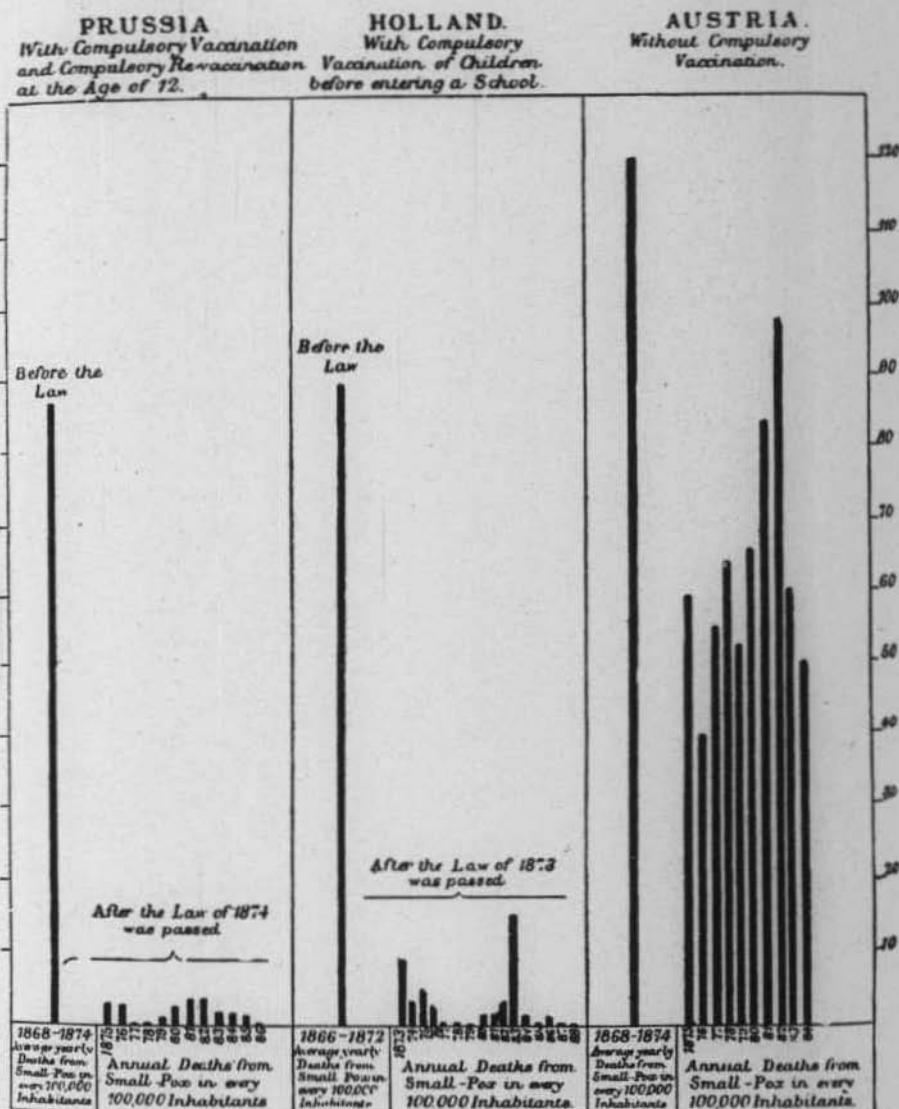
It must be remembered that the State Board of Health is not especially authorized by law to actually treat persons suffering from communicable diseases unless it is their expressed wish and desire that such should be done. It is not obligatory upon any person to take advantage of the plan of the State Board of Health to furnish this treatment nor is it obligatory if a citizen is bitten by a rabid animal for him to have the Pasteur treatment administered. It is, however, recommended by the Board. In an effort to prevent suffering and mortality from communicable diseases, especially those of a dangerous character, and to lessen also the cost of some of the preventive means of attaining this end, it is necessary that some method should be arranged whereby the public can prevent their lives being jeopardized.

To those who are sceptical of the beneficial results of vaccination in stamping out and preventing smallpox, the following diagram and editorial comment from *Collier's Weekly* is commended, for it is extremely interesting and forcefully conclusive:

ONE THING DONE

"Among the conquests of man the victory over smallpox ranks high. Look at this chart. It will be noticed, of course, that Prussia and Holland have compulsory vaccination, and Austria has not. The figures

in any American city will be found to show the same startling relation to vaccination. We are now passing on to other diseases. For instance,



in the last campaign in New York State, both political parties put into their platforms planks favoring State action against tuberculosis. Man's present record on the globe contains nothing more to his credit than this successful grappling with some of the most powerful and malignant enemies of his race."

THE RECORD COMPANY
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of the country. In some countries there is no such thing as a central bank.

In other countries there is one central bank which is responsible for the whole country's money supply. In still other countries there are several central banks which are responsible for different parts of the country.

There are also some countries which have no central bank at all.

The central bank is usually responsible for the following things:

(1) It is responsible for the issue of money. This means that it is responsible for the amount of money in circulation.

(2) It is responsible for the control of credit. This means that it is responsible for the amount of credit available in the country.

(3) It is responsible for the regulation of the currency. This means that it is responsible for the value of the currency.

(4) It is responsible for the supervision of the banking system. This means that it is responsible for the safety of the banking system.

(5) It is responsible for the promotion of economic development. This means that it is responsible for the promotion of economic development.

(6) It is responsible for the promotion of financial stability. This means that it is responsible for the promotion of financial stability.

(7) It is responsible for the promotion of international trade. This means that it is responsible for the promotion of international trade.

(8) It is responsible for the promotion of industrial development. This means that it is responsible for the promotion of industrial development.

(9) It is responsible for the promotion of agriculture. This means that it is responsible for the promotion of agriculture.

(10) It is responsible for the promotion of education. This means that it is responsible for the promotion of education.

(11) It is responsible for the promotion of health. This means that it is responsible for the promotion of health.

(12) It is responsible for the promotion of culture. This means that it is responsible for the promotion of culture.

(13) It is responsible for the promotion of science. This means that it is responsible for the promotion of science.

(14) It is responsible for the promotion of art. This means that it is responsible for the promotion of art.

(15) It is responsible for the promotion of literature. This means that it is responsible for the promotion of literature.

(16) It is responsible for the promotion of sports. This means that it is responsible for the promotion of sports.

and that he had been given a copy of the
Report of the Royal Commission on
the Status of Women which had recommended
that women should be given the right to
vote.

The Queen then asked if she could have a copy
of the Report and was told that it would be sent to her.
The Queen also asked if she could have a copy
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of the Royal Commission. She was told that it had
not yet been introduced. The Queen then asked
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had been to Canada, and had a good time. This would be a good day for me to go to the city and see the sights.

The weather was nice, and I went to the beach and had a good time. I also went to the city and saw the sights. This was a good day for me to go to the city and see the sights.

THE LAKE OF VACATION

After a long day of traveling, we finally arrived at our destination. We were all very tired, but excited to be there.

ARRIVAL

We got off the bus and walked towards the lake. It was a beautiful day, and the water was clear and blue. We took a walk around the lake and enjoyed the scenery.

We found a nice spot to camp and set up our tents. The sun was still out, and we enjoyed a picnic lunch by the water.

After lunch, we decided to take a swim in the lake. The water was cool and refreshing, and we had a great time swimming and playing in the water.

We spent the afternoon relaxing by the lake, reading books, and talking to each other. It was a great day, and we were all happy to be there.

We had a great time at the lake of vacation. We enjoyed the scenery, the water, and each other's company. It was a wonderful day, and we will always remember it.

We packed up our tents and headed back to the city. We were all tired, but happy to have had such a great time at the lake of vacation.

AMAZONIAN JEWEL

After a long day of traveling, we finally arrived at our destination. We were all very tired, but excited to be there. The Amazonian Jewel was a beautiful hotel, and we enjoyed our stay there. The food was delicious, and the service was excellent. We made many new friends and had a great time.

We spent the day exploring the city and taking in the sights. We visited the local markets, where we bought some souvenirs. We also visited the local temples and learned about the local culture.

and the following day he was able to get away from the
city. He had to leave his gun and some supplies behind.
He had to walk through the mountains and across the
rivers and streams. During this time he was exposed to
the elements and was often cold and wet. He had to
travel at night to avoid being seen by the Japanese.
He had to sleep in the open and eat whatever he could
find. He had to travel for many days and nights.

CHAPTER

THE JAPANESE CAPTURE

The Japanese were still on the march.
They had to cross the mountains and pass through
the forests. They had to travel at night to avoid being seen by the
Japanese. They had to sleep in the open and eat whatever they could
find. They had to travel for many days and nights.

The Japanese had to travel through the
forests and mountains. They had to cross
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the first time in 1991. In 1992, the number of new cases increased to 1,000, and in 1993, it reached 1,500. The number of new cases in 1994 was 2,000, and in 1995, it reached 2,500. The number of new cases in 1996 was 3,000, and in 1997, it reached 3,500. The number of new cases in 1998 was 4,000, and in 1999, it reached 4,500. The number of new cases in 2000 was 5,000, and in 2001, it reached 5,500. The number of new cases in 2002 was 6,000, and in 2003, it reached 6,500. The number of new cases in 2004 was 7,000, and in 2005, it reached 7,500. The number of new cases in 2006 was 8,000, and in 2007, it reached 8,500. The number of new cases in 2008 was 9,000, and in 2009, it reached 9,500. The number of new cases in 2010 was 10,000, and in 2011, it reached 10,500. The number of new cases in 2012 was 11,000, and in 2013, it reached 11,500. The number of new cases in 2014 was 12,000, and in 2015, it reached 12,500. The number of new cases in 2016 was 13,000, and in 2017, it reached 13,500. The number of new cases in 2018 was 14,000, and in 2019, it reached 14,500. The number of new cases in 2020 was 15,000, and in 2021, it reached 15,500. The number of new cases in 2022 was 16,000, and in 2023, it reached 16,500. The number of new cases in 2024 was 17,000, and in 2025, it reached 17,500. The number of new cases in 2026 was 18,000, and in 2027, it reached 18,500. The number of new cases in 2028 was 19,000, and in 2029, it reached 19,500. The number of new cases in 2030 was 20,000, and in 2031, it reached 20,500. The number of new cases in 2032 was 21,000, and in 2033, it reached 21,500. The number of new cases in 2034 was 22,000, and in 2035, it reached 22,500. The number of new cases in 2036 was 23,000, and in 2037, it reached 23,500. The number of new cases in 2038 was 24,000, and in 2039, it reached 24,500. The number of new cases in 2040 was 25,000, and in 2041, it reached 25,500. The number of new cases in 2042 was 26,000, and in 2043, it reached 26,500. The number of new cases in 2044 was 27,000, and in 2045, it reached 27,500. The number of new cases in 2046 was 28,000, and in 2047, it reached 28,500. The number of new cases in 2048 was 29,000, and in 2049, it reached 29,500. The number of new cases in 2050 was 30,000, and in 2051, it reached 30,500. The number of new cases in 2052 was 31,000, and in 2053, it reached 31,500. The number of new cases in 2054 was 32,000, and in 2055, it reached 32,500. The number of new cases in 2056 was 33,000, and in 2057, it reached 33,500. The number of new cases in 2058 was 34,000, and in 2059, it reached 34,500. The number of new cases in 2060 was 35,000, and in 2061, it reached 35,500. The number of new cases in 2062 was 36,000, and in 2063, it reached 36,500. The number of new cases in 2064 was 37,000, and in 2065, it reached 37,500. The number of new cases in 2066 was 38,000, and in 2067, it reached 38,500. The number of new cases in 2068 was 39,000, and in 2069, it reached 39,500. The number of new cases in 2070 was 40,000, and in 2071, it reached 40,500. The number of new cases in 2072 was 41,000, and in 2073, it reached 41,500. The number of new cases in 2074 was 42,000, and in 2075, it reached 42,500. The number of new cases in 2076 was 43,000, and in 2077, it reached 43,500. The number of new cases in 2078 was 44,000, and in 2079, it reached 44,500. The number of new cases in 2080 was 45,000, and in 2081, it reached 45,500. The number of new cases in 2082 was 46,000, and in 2083, it reached 46,500. The number of new cases in 2084 was 47,000, and in 2085, it reached 47,500. The number of new cases in 2086 was 48,000, and in 2087, it reached 48,500. The number of new cases in 2088 was 49,000, and in 2089, it reached 49,500. The number of new cases in 2090 was 50,000, and in 2091, it reached 50,500. The number of new cases in 2092 was 51,000, and in 2093, it reached 51,500. The number of new cases in 2094 was 52,000, and in 2095, it reached 52,500. The number of new cases in 2096 was 53,000, and in 2097, it reached 53,500. The number of new cases in 2098 was 54,000, and in 2099, it reached 54,500. The number of new cases in 20000 was 55,000, and in 20001, it reached 55,500.

FIGURE 1. DISEASES OF THE BRAIN AND NERVOUS SYSTEM



Source: National Center for Health Statistics, Vital Statistics, 2000.

THE WORKS OF THE MASTERS like ALEXANDER DODD

1960. This is the second year of the study. The first year was a control year. The second year is a treatment year. The third year will be a control year again.

The first year of the study was a control year. The second year is a treatment year. The third year will be a control year again.

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RESULTS

The first year of the study was a control year. The second year is a treatment year. The third year will be a control year again.

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the 2000s, the number of people with low levels of education has increased.

The Demographic and Health Survey (DHS) is a household survey that collects information on health, family planning, and other socio-economic variables. It is conducted in over 90 countries around the world, providing a wealth of data on population trends and health outcomes. The DHS data can be used to examine trends in education, health, and other socio-economic variables over time and across different countries.

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CLASSIFICATIONS

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BIBLIOGRAPHY AND ADDITIONAL READINGS

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CHAPTER 19. PREGNANCY

It is now time to consider the changes in the body which occur during pregnancy. These changes are brought about by the increased production of oestrogen and progesterone by the ovaries. These hormones act on the body to bring about the changes which are necessary for the support of the fetus.

The first change is in the breasts. The milk glands begin to develop and the blood supply to the breasts increases. This leads to the development of the milk ducts and the formation of the milk.

The second change is in the uterus. The lining of the uterus thickens and becomes more vascular. This prepares the uterus for the reception of the fetus.

The third change is in the ovaries. The ovaries produce more oestrogen and progesterone. This stimulates the growth of the fetus and the development of the placenta.

The fourth change is in the blood. The blood volume increases and the blood vessels dilate. This provides more oxygen and nutrients to the fetus.

The fifth change is in the heart. The heart has to pump more blood to support the increased blood volume and the fetus.

The sixth change is in the lungs. The lungs have to work harder to provide oxygen to the fetus.

The seventh change is in the kidneys. The kidneys have to filter more waste products from the blood.

The eighth change is in the liver. The liver has to detoxify the waste products from the blood.

The ninth change is in the skin. The skin has to excrete more waste products from the blood.

The tenth change is in the brain. The brain has to control the body's functions to support the fetus.

FLORIDA



Health Notes

OFFICIAL BULLETIN

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Sent to any address in the State for the asking.

If you receive it without asking, it means that someone else has requested it for you.

When you change your address drop us a card.

When giving change of address, give both the old and the new.

Anything you want to know about the public health we will try to tell you.

Any information you want about communicable diseases of domestic animals we will help you to get.

Address communications to Jacksonville, Fla.

*Hail, holy light! offspring of Heav'n first-born!
* * * * * thee I revisit safe,
And feel thy sovereign vital lamp; but thou
Revisit'st not these eyes, that roll in vain
To find thy piercing ray, and find no down.
* * * * * Thus with the year
Seasons return; but not to me returns
Day, or the sweet approach of even or morn,
Or sight of vernal bloom, or summer's rose,
Or flocks, or herds, or human face divine;
But clouds instead, and ever-during dark
Surrounds me.*

—Milton.

OPHTHALMIA NEONATORUM

Sore Eyes of New-Born Babies

It is a recognized fact that one-fourth of all the blind children in all the blind schools of this country are *unnecessarily* blind. These children have been doomed to lifelong darkness because at the time of their birth their eyes were not properly washed and treated by the attending physician or midwife.

There is no excuse for such negligence. On the part of the physician it is due to carelessness; on the part of the midwife to carelessness or ignorance.

In this issue of the **HEALTH NOTES** will be found a copy of a leaflet that is now being distributed by the State Board of Health, discussing the subject of prevention of this disease.

At the 1911 session of the Florida Medical Association the State Health Officer of Florida was requested by the Association's Special Committee on Ophthalmia Neonatorum to assist in their campaign of education upon this subject, and the leaflet mentioned is an effort to comply with that request. It is desired that every physician in Florida shall not only recognize the necessity for the prevention of this disease, but that he shall cooperate with the State Health Officer in placing a copy of the leaflet in the hands of every midwife in the State. The leaflet will hereafter not only be mailed to each physician and midwife when requisition is made by them for birth and death certificates, but it will be distributed by the office as all other publications are, as widely as possible.

Much good work in directing the attention of the public to this disease and in securing the cooperation of physicians and midwives in its prevention has been done, and these organizations now feel that the mother, the father, and the future parents of other generations should be made to realize not only the danger's of this frightful disease, but should be taught that it *can* and *should* be prevented.

The State Board of Health is therefore glad of the opportunity to cooperate in this good work, and desires to extend its sincere thanks to The Committee on Ophthalmia Neonatorum of the Florida Medical Association (Dr. E. N. Liell, of Jacksonville, Chairman), and to the Committee of the American Medical Association (Dr. F. Park Lewis, of Buffalo, N. Y., Chairman), the Massachusetts State Board of Health (Dr. Mark W. Richardson, Secretary), the New York State Department of Health (Dr. Eugene H. Porter, Commissioner of Health), and the New York Association for the Blind, for assistance and suggestions

in the preparation of the leaflets, which is practically a copy of that distributed by the New York State Department of Health.

The New York Department of Health and the Massachusetts State Board of Health, under authority of their State laws, distribute, free of cost, to the medical profession and midwives, outfits containing the preventive solution for use in the eyes of every new-born babe.

Joseph Y. Porter, M. D.,
State Health Officer.

Circular 86.

**FLORIDA
STATE BOARD OF HEALTH,
Jacksonville.**

DIRECTIONS

FOR THE

Prevention of Ophthalmia Neonatorum

(SORE EYES OF NEW-BORN BABIES.)

A birth infection of the eyes is almost always preventable and curable. Through negligence it has caused the blindness of one quarter of the children in the schools for the blind.

Keep the infected material out of the baby's eyes and then use the preventive solution.

Directions for Mothers, Midwives and Nurses

The Disease. This disease is always due to an infection caused by the entrance of certain germs into the eyes of the baby at the time of, or shortly after birth.

Its Prevention. The disease can almost surely be prevented by the exercise of proper care at the time of birth of the child and during the first few days of its life. If the proper precautions are not taken, and the disease develops and runs its course unchecked, the sight is totally destroyed, often within a fortnight.

Preventive Measures for All Mothers

All women during pregnancy should be instructed as follows: Daily external cleansing should be thoroughly performed with soap and water and a clean wash cloth. Should the pregnant woman have

any irritating discharges, or even profuse white discharge, she should be instructed to *immediately* consult her physician or the nearest dispensary.

Preventive Measures for All Children at Birth

Immediately after the delivery of the head, before the delivery of the body, the eyelids should be carefully cleaned by means of absorbent cotton or a soft linen cloth dipped into warm water that has been boiled or into boric acid (saturated) solution. A separate cloth should be used for each eye, and the lids washed, from the nose outward, free from all mucus, blood or meconium. These cloths should be burned after using. No opening of the lid should be attempted at this time. Also the lips and nose should be in like manner wiped free of mucus, and the little finger, wrapped with a piece of moist linen, should be passed into the child's mouth and any accumulated mucus removed by an outward sweep of the finger.

Use of Prophylactic Solution

As soon after birth as possible the eyelids should be again wiped clean of mucus, and two drops of a one per cent. solution of nitrate of silver should be dropped into each eye. *One application only of the silver solution should be made*, and ordinarily no further attention should be given the eyes for several hours.

Each time that the child is bathed, the eyes should be first wiped clean, as above described, with the boric acid solution.* The hands of the person charged with the care of the child must be washed with soap and dried with a clean towel before the eyes of the child are touched. Everything that is brought near the eyes of the child must be, in every instance, absolutely clean.

The cotton that is used on the eyes of the child must, in every instance, be immediately burned after it is used. The water, towels, old linen and the cotton that have been used on the mother must, under no circumstances, be applied to the child. The air of the bedroom must be kept as pure as possible, and the linen should never be dried in the sick room.

What Must be Done When Inflammation of the Eyes Appears

When the lids become red and swollen, and are gummed along their borders, and when mattery discharge is mixed with the tears as

*Boric acid costs little and may be bought of any druggist without a doctor's prescription.

the child sleeps or cries, a physician should be called immediately, or the child taken to the nearest dispensary. Each hour of the delay adds to the danger. While waiting bathe the eyes of the child every half hour with pledgets of cotton dipped in a solution of boric acid. Open the lids wide and allow the solution, which should be warm, to flood the eyes and wash out any matter which may have gathered there.

The child should not be fondled and nothing which has been used about the eyes or face should be used for any other purpose. All of those in the home should be warned of the danger of catching the disease by getting the matter into their own eyes. Do not listen to those who say it will amount to nothing, or to those who say to bathe the eyes of the child with the mother's milk (the milk is a means of spreading the germs of this disease). Such advice is bad; the delay may result in blindness.

This circular is a modification of that published by the New York State Department of Health.

NOTES ON OPHTHALMIA NEONATORUM

The Committee of the Florida Medical Association directed attention in its report to the economic character of this disease and its prevention. The proper care of the eyes of the new-born and the adoption of precautions to prevent the disease are comparatively inexpensive. On the other hand, it has been estimated by the New York Association for the Blind that the average cost to the State of a person, blind from birth and dependent through life, approximates \$10,000.

In an effort to obtain statistics regarding the disease in Florida, The Florida School for the Deaf and Dumb, a year ago, found that in twenty-six instances twelve inmates of the School furnished a history, through their parents, of blindness at birth or within three weeks; two were regarded as suspicious, and twelve were due to other causes. The lesson here is that if the physicians or midwives who attended the births of the twelve children first mentioned, had exercised proper care of the eyes, the blindness would have been prevented, at least in a majority of these cases.

Dr. F. Park Lewis, of Buffalo, in his report as Chairman of the Committee on Ophthalmia Neonatorum of the American Medical Asso-

ciation, directs special attention to the matter of treatment of the infection after its appearance, and says: "If infection occurs, its treatment should be immediate and under intelligent medical supervision. Subsequent to prophylaxis the newer and less irritating silver salts are far safer in the hands of the physician who is unused to the treatment of the eyes and it should always be made clear that the treatment of a birth infection of the eyes MUST NEVER BE UNDERTAKEN BY A MIDWIFE OR NURSE. When inflammation develops, a physician should immediately be called."

There is one conclusion universally arrived at by all organizations and committees studying this disease: Midwifery must be supervised or suppressed. The supervision of midwives can only be done by a State law requiring an examination and licensing in the same manner that physicians, dentists, pharmacists, accountants, embalmers, and others are required to undergo.

The suppression of midwifery is hardly feasible nor possible, but women who follow this trade should show a proper knowledge of what they are undertaking.

The New York State Department of Health suggested in the first circular it published upon Ophthalmia Neonatorum that the Secretaries of County Medical Societies prepare a pledge and obtain to it the signature of every physician in his county, in which it would be agreed by each physician to adopt some approved method of prophylaxis in his obstetric practice and to use his influence to secure the cooperation of his professional associates to the same end. Should these pledges be given and observed by the medical profession as a whole, the battle now being waged will be more than half won.

REMEDIES AND PREVENTIVES AGAINST MOSQUITOES

INTRODUCTION

Since the discovery that mosquitoes are not only nuisances, but are also conveyors of malaria, yellow fever, filariasis, and dengue fever, a great deal of remedial work has been done by individuals and communities. Many remedies and plans of action have been tested on a large scale, and what follows is a summary of the results.

PROTECTION FROM BITES

PROTECTIVE LIQUIDS.

Spirits of camphor rubbed upon the face and hands or a few drops on the pillow at night will keep mosquitoes away for a time, and this is also a well-known property of oil of pennyroyal. Neither of these substances is durable; that is to say, a single application will not last through the night. Oil of peppermint, lemon juice, and vinegar have all been recommended, while oil of tar has been used in regions where mosquitoes are especially abundant. Oil of citronella is one of the best substances to be used in this way. The odor is objectionable to some people, but not to many, and it is efficient in keeping away mosquitoes for several hours. The best mixture tried by the writer was sent to him by Mr. C. A. Nash, of New York, and is as follows:

Oil of citronella	1 ounce
Spirits of camphor	1 ounce
Oil of cedar	½ ounce

Ordinarily a few drops on a bath towel hung over the head of the bed will keep the common house mosquitoes away. Where they are very abundant and persistent a few drops rubbed on the face and hands will suffice. Even this mixture, however, loses its efficacy toward the close of a long night. It is the habit of the yellow fever mosquito, *Aédes (Stegomyia) calopus* Meig., to begin to bite at daylight. By that time the average person is sleeping very soundly, and the effects of the mixture will have largely passed away. It follows that in the Southern States where this mosquito occurs these protective mixtures are not supposed to be as effective as they are in the North. As a matter of fact, however, this last mixture, could it be applied shortly before dawn, would be as effective as under other circumstances.

A mixture recommended by Mr. H. E. Gane, of New York, is as follows:

Castor oil	1 ounce
Alcohol	1 ounce
Oil of lavender	1 ounce

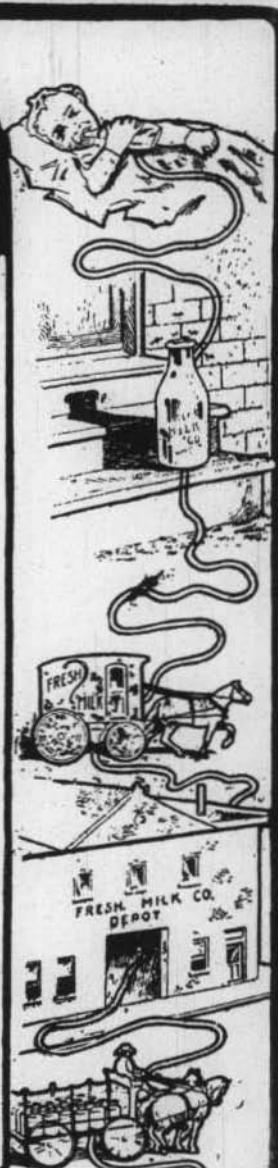
This mixture was prepared for the purpose of avoiding the odor of the oil of citronella.

Oscar Samostz, of Austin, Tex., recommends the following formula:

Oil of citronella	1 ounce
Liquid vaseline	4 ounces

MOTHER'S MILK FOR MOTHER'S BABE COW'S MILK FOR CALVES

(God's Plan)



The Long vs. The Short Haul

70 percent of city babies get their food through a tube 60 miles long.

It takes about 36 hours—often 42 hours—for the milk to run from the cow end of the tube to the baby end of the tube.

This tube is open in many places and baby's food is frequently polluted. It is often wrongly kept in overheated places.

Then there may be a diseased cow at the country end of the tube.

And Yet Some People Wonder Why
So Many Babies Die!

On the other hand the mother-fed baby gets its milk fresh, pure and healthful—no germs can get into it.

To Lessen Baby Deaths Let Us Have
More Mother-Fed Babies.

You can't improve on God's plan.
For Your Baby's Sake—Nurse It!

This mixture greatly retards the evaporation of the oil of citronella. Mr. B. A. Reynolds has used successfully in New Orleans 20 minims of oil of citronella to the ounce of vaseline or lanolin.

A 5 per cent solution of sulphate of potash has been recommended as also the oil of cassia. Pure kerosene has also been used extensively in the Philippines.

The above is extracted from *Remedies and Preventives Against Mosquitoes*, by Dr. L. O. Howard, Farmers' Bulletin 444 of the U. S. Department of Agriculture.

After discussing remedies against mosquitoes as above, Dr. Howard continues, showing the necessity for the use of screens and canopies to protect against mosquito bites; explains how insecticides may be used to advantage; describes apparatus for catching adult mosquitoes; discusses remedies for mosquito bites; and deals explicitly with the question of the abolition of mosquito breeding places.

The bulletin, consisting of fifteen pages, is considered by the NOTES one of great value, and upon application to the office of the State Board of Health, Jacksonville, copies will be gladly furnished.

Pellagra seems to be on the increase in Florida. Which does it mean: More cornbread or infected sand flies?

The other day a man asked why the NOTES have so much to say about vaccination.

The answer was: "Smallpox."

If you get vaccinated and it *doesn't take*, then you won't have smallpox will you?

If you get vaccinated and it *does take* you won't have smallpox, but if it *doesn't take*, it probably means that the virus was inert. Better try again.

A party was driving out through the country and stopped to enquire the way. A man was lying on the veranda on the floor with a chair turned down for a pillow. Asked the road, he didn't rise, but lay there and gave direction, pointing when necessary with his toe.

Will some hookworm expert please make a diagnosis.

Reminds us of Kate Douglas Wiggins' Jabe, who, when asked if he wasn't ashamed to lie in bed so late, made answer: "Yes'm, but I ruther be ashamed than to get up."

TO AID IN PREVENTING FEVERS

"The State Board of Health announces through **HEALTH NOTES**, a regular publication, that malarial fevers are caused by mosquito bites from mosquitoes that have bitten someone with the fever, and adds that malarial fever cannot be contracted except in this way.

"In another chapter it points out that typhoid fevers, and other fevers which are named, are possible through the agency of the common house fly. The house fly carries the disease from infected articles and then may light upon foods that are eaten and in this way a person contracts the typhoid germs.

"With these two nuisances destroyed malarial and typhoid fevers would be wiped out of Florida. It seems a little thing to do, but it is such a Herculean task that it cannot be accomplished without the cooperation of the entire population.

"It is a known fact that this cooperation cannot be obtained, and the work can be only partially carried on by a few conscientious residents. But there is a class of people that should use every precaution, and that is the class of people that have either kind of fever cases in their families.

"Where there is a case of fever the bed should be thoroughly screened to keep the patient away from the mosquitoes and flies, and, if this is done, no matter how many mosquitoes and flies there may be around the house the disease will not be carried from this particular patient to any others of the family, or to the neighbors.

"Persons having fever cases in their homes owe this much to the public, and if everyone will attend to this matter, fever cases will be very few in Pensacola.

"There is a systematic campaign on against the fly and the mosquito and they are both gradually being destroyed, but the people with sickness in their homes, by exercising a small degree of precaution, can aid in the work to make Pensacola the healthiest city in the world."—*Pensacola Journal*.

This from the *Pensacola Journal* is very encouraging. Not that we are very sanguine about the immediate eradication of malaria and typhoid from the State, but that with cooperation of that kind, we will gradually come to have less and less till at last we will be practically free from these two diseases.

Yes, all cases of malaria should be treated under screens. But **that** is not enough. It is not enough that the malaria patients should be treated under screens, for there are a certain number of persons harboring the malarial parasites that do not have active symptoms. The writer took blood smears from 100 children at a certain point in the State, children that were apparently well, and found that twelve of them had malarial parasites. These children did not have **malaria** in the sense that they were sick. But they did have it in the sense that they could infect mosquitoes. Let a mosquito bite one of these **carriers**, as they are called, and he will become infected. Then after a period of some eight days or so, he can transmit the parasite to some one else. So you see it is not enough that those with active symptoms should stay out of reach of mosquitoes, but carriers should also be screened.

Nor is it enough that sufferers and carriers be screened. That would protect the mosquitoes from infection and would go a long way toward eradicating the disease. Would eradicate it in fact if carried out with sufficient thoroughness. But there is the rub. The sufficient thoroughness. That is hard to attain. Hence a few mosquitoes will become infected. And these in turn will infect a few other people, unless they, too, are screened.

So summed up or boiled down it will be seen that every person who has malaria, or who is a malaria carrier, or who doesn't want to get some of the parasites injected into him, had better be protected from mosquitoes; those who have it already to keep from infecting mosquitoes; malaria carriers to keep from infecting mosquitoes, and persons who don't want it to keep mosquitoes from infecting them.

TIT FOR TAT

Antis do give vaccination the d—l, and then
Smallpox gives the antis the d—l.

THE ONLY RATIONAL METHOD OF SMALLPOX MANAGEMENT

The other day the City Council of DeFuniak Springs passed a resolution urging "that vaccination be universally recognized and practiced as the only rational method of smallpox management."

Won't you just stop and read that over and emphasize the word **only** for it is full of significance.

That is to say, quarantine is not a rational method.

Isn't that a very heterodox doctrine?

Haven't we always resorted to quarantine?

Haven't we always used a shotgun to enforce quarantine?
 How will DeFuniak defend her heterodoxy?
 How will she clear herself in the eyes of the world after having broken away from the faith of the fathers?

Just put the questions up to her—DeFuniak is abundantly capable of defending her position. She knew what she was saying and why she was saying it. It is not her style to go off at a tangent. The people of DeFuniak are largely of Scotch descent. They were pioneers in America and pioneers in Florida. So far back as 1828 a band of these sturdy Scotchmen took their families and their ox carts and came across country to Euchee Valley, which is now some miles distant from DeFuniak Springs. There they wrought their fortunes from the soil and builded well as became Scotch people. When the Civil War broke out they had a church of some three hundred members and one of the best schools in the State.

After the railroad came through Walton county, many of them moved to DeFuniak Springs where they formed the nucleus of what is today one of the most cultured places in the State.

It was here that the State Normal was located for many years till it was abolished by the Buckman Bill, and since that time a Presbyterian School, known as Palmer College, has taken its place.

Is it any wonder that DeFuniak takes an advanced position?

Now ask her why she considers that quarantine is not a rational method of smallpox management and she will answer:

"It is impossible to control disease by quarantine unless all cases are quarantined."

"It is impossible to quarantine all the cases of smallpox because they are not all reported."

"It is impossible to get them all reported because they are not all recognized."

"It is impossible to get them all recognized because many cases are so mild that they never see a doctor, and because even the skilled physician is not always able to recognize all cases because of their mildness."

"Therefore:

"It is impossible to control smallpox by quarantine."

Besides, they will continue:

"Quarantine without guards is no quarantine. It is only a make-believe."

"Quarantine with guards is only a bluff, for has the guard the right to shoot? Who has the right to give the guard the right to take human life? Then what is your guard service but a bluff? And would you have your State Board of Health engage in a bluff game of this kind? Would you have your State Board of Health spend thousands of dollars in the prosecution of a bluff game that gives no protection?"

Then what would you say?

If pressed DeFuniak would go on:

"Every dollar spent in dodging smallpox is wasted for it leaves us no better off than we are at present. The only thing that affords us any permanent protection is that which has for its object the *prevention* of the disease and not merely its *postponement*."

Then she would add:

"VACCINATION PREVENTS THE DISEASE, QUARANTINE ONLY POSTPONES IT."

And if you were not satisfied by this time, she would give you some more till you were satisfied, for she has plenty more like it for you.

Whom do you send for when the smallpox gets you?

The antivaccinationist of course.

When is the best time to get vaccinated?

Before you get smallpox.

How often should one get vaccinated?

Every few days till it takes.

Not long ago a Florida editor came out "agin'" vaccination.

He is now "agin'" smallpox.

Through the courtesy of the Florida Delegation in Congress the State Board of Health has been supplied with limited quantities of the following Farmers' Bulletins of the United States Department of Agriculture:

No. 85—Fish as Food.

No. 93—Sugar as Food.

No. 127—Important Insecticides.

No. 152—Scabies of Cattle.

No. 379—Hog Cholera.

- No. 391—Economical Use of Meat in the Home.
- No. 444—Remedies and Preventives Against Mosquitoes.
- No. 449—Rabies or Hydrophobia.
- No. 450—Some Facts About Malaria.

These bulletins are for general distribution to the citizens of the State, and as long as the supply lasts, they will be gladly furnished upon request.

FOR THE PHYSICIAN

Hon. N. P. Bryan, United States Senator from Florida, has furnished the State Board of Health with a supply of Bulletin No. 135, of the Bureau of Animal Industry, "A Comparative Study of Methods of Examining Feces for Evidences of Parasitism." The physicians of the State who do their own laboratory work in examining specimens for hookworms or other animal parasites will find this bulletin of much value, for it discusses the several methods used in examining human feces and gives the results of tests as to finding a method that will give the surest results in the shortest time.

Upon application, the bulletin will be furnished by this office so long as the quantity is not exhausted.

COMMUNITY CHARACTERISTICS

Communities have characteristics just as individuals do. Of course the community characteristic is the dominant characteristic of its component citizens. But allowing the citizen to get lost in the shuffle, you can acquire a very definite community character.

For instance: I have known a man turn a hungry beggar from his door—seen him drop a penny in the contribution basket; and totally ignore the distress of his neighbor, whatever that distress may be, until his neighbor happens to get smallpox, and then all at once he becomes very solicitous. Not that he does anything himself—no, no. He just wants the neighbor taken care of. Remarkable how humanely inclined people become for others with smallpox. Some communities act the same way.

Then again the individual can do just as opposite to that as he can improvise. So can the community. I remember an instance about eight years ago when smallpox appeared in a certain community in the western part of the State. I was detailed over there to—do something—whatever was considered necessary to arrest its spread. I found the railroad agent at his post with smallpox. A small boy was sitting

on the steps of the station house picking at his scabs. Several others showed evidence of recent infection. The entire community was out to see the train come in. I was introduced by the man that had reported it. Asked what I thought it was I replied that it was smallpox, and asked the counter-question what did they think it was. They gave me the horse laugh. If you have ever had the horse laugh you know how uncomfortable it makes you feel. I tried to press the case home by showing the seriousness of the disease sometimes. The crowd gathered round to jibe me and ask impertinent questions. When I suggested vaccination, I got some more horse laugh. One man befriended me enough to take me to one side and tell me that if it was smallpox, they all wanted to get it while it was mild, that the next time it comes round it might go hard with them. He said they had a party there the week before at the little hotel and that no one was admitted that didn't have this disease, or who didn't want it and he assured me that the party was well attended. He gave me some kind advice about allowing them to attend to their own business and some further suggestions along the same line. I was glad enough when time for departure came. I reported the matter to the State Health Officer and there it ended.

But they have never had smallpox there since.

QUESTION

When smallpox spreads rapidly enough to clean up a community in six months if unmolested, how long will the agony be drawn out by quarantining half the cases? (We rarely hear of more than half).

THE SHORT FEVERS OF THE TROPICS

The study of the short fevers of the tropics seems destined to be of considerable importance to Northern physicians. As previously stated, British Army surgeons are classifying the cases into three-day, seven-day and ten-day types, from all of which malaria, typhoid, Malta fever, as well as dengue are definitely excluded. Lt.-Col. J. J. Gerrard, in the October *Journal of the Royal Army Medical Corps*, shows that three-day fever is found in Malta almost exclusively in the summer as though it were climatic, indeed, many cases are so closely connected with a prior sun exposure as to have been labeled "thermic fever." Nevertheless a living cause is not disproved as it is the season when insect transmitters are at work. Seven-day fever is more evenly distributed throughout the year, but as none occurs in the coldest

months the same remarks apply to it as the shorter form. Ten-day fever is evenly distributed throughout the year, but as these cases are becoming more and more rare, it is evident that they were mostly unrecognized Malta or typhoid fevers or other infections now recognized. Perhaps these simple continued fevers will disappear and the only cases to clear up will be the ephemeral fevers and febriculae. This all shows satisfactory progress, but it would be well for our city physicians not to consider any summer fevers as climatic or thermic until they have excluded all known causes—particularly infections and auto-intoxications. It is certainly a good sign of increasing ability in diagnosis to note the rapid decline of "simple continued fevers," which formerly figured so largely in our hot weather practice.—*American Medicine, April, 1911.*

CHANGES IN PERSONNEL

On May 31st, Dr. L. C. Fisher, of Green Cove Springs, was appointed Agent of the State Board of Health for Clay county, vice Dr. T. M. Edwards, whose resignation was announced in last month's NOTES.

Captain Cunningham, Calcutta, has studied the effect of sunlight on fleas. Garments were spread out on sand with fleas on both the upper and underside. Those on the upper side died in ten minutes under the influence of the Indian sun. On the under side it took about forty-five minutes to kill them. But the point is they died.

Who said sunshine is not a good disinfectant?

RESULTS IN EMBALMERS' EXAMINATION

The spring examination for embalmers' license was conducted by the State Board of Health at the undertaking parlors of Neal & Brotherton Co., Jacksonville, on May 13th, 1911.

Sixteen applicants for license were present, eleven of whom failed to obtain the necessary percentage (75%).

The five successful applicants are as follows:

V. B. Keller, St. Cloud, Fla.

R. A. Rozier, Panama City, Fla.

G. Potsdamer, Live Oak, Fla.

General H. Hall, (col.), Jacksonville.

Lawton L. Pratt, (col.), Jacksonville.

Unless request is received from more than five persons the usual fall examination will be deferred until the spring of 1912.

FLORIDA



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Anything you want to know about the public health we will try to tell you.

Any information you want about communicable diseases of domestic animals we will help you to get.

Address communications to Jacksonville, Fla.

"The charm of life, that which gives it zest and meaning, is to do useful work for our time, our place and our generation; to realize that we are needed in the progress of things, and even at times appreciated; to give more than we receive; to place usefulness ahead of emolument; to push the world a little inch up-hill, to plant a flower in everybody's garden but our own."

—John W. Alvord.

A PUBLIC HEALTH DEPARTMENT! IS IT ESSENTIAL TO PROGRESSIVE HEALTH MANAGEMENT?

Much has been said of late about a Federal public health department.

The *Notes* has taken little part in the discussion. But it has been busy putting two and two together. Having maintained a conservative attitude, and having been engaged in public health work for many years, and having neither friends to reward nor enemies to punish, and courting no favor, nor fearing no criticism, within or without the ranks, it may be able to deliver a calm judgment in the premises.

It is proposed by the advocates for a Public Health Department, that all the existing public health agencies should be assembled into one department, with a secretary in the President's cabinet, which procedure, it is alleged, will prevent duplication of work, make the medical officer in charge independent of a superior, and add to the dignity of the service.

To the practical legislator there are some well nigh insurmountable obstacles in the way of a public health department. There is an inherent objection, by Congress — representatives of the people — to multiplying cabinet officers, and the necessity must become urgent before it will be seriously considered. And even then the advantages must be poised against the disadvantages; the proposed method against the present one; and then when the possibilities of the existing method are subtracted from the possibilities of the proposed, it is only what is left that the practical legislator will consider of any vital importance.

When that subtraction is made there isn't much left. Is there? A department would have no more power than a bureau to enter a State. The Department of Agriculture, for instance, in the control of diseases of domestic animals, can only exercise independent jurisdiction along State lines and in an interstate authority; so can the Bureau of Public Health and Marine-Hospital Service in the control of human diseases. Indeed it is a universally recognized principle of our government that the police powers are reserved to the State and cannot be encroached upon by the Federal government, and that the sanitation of a State is a part of the policing of it.

An assembling of the several public health agencies simply means transferring certain bureaus and parts of bureaus from one department to another; the Bureau of Vital Statistics from the Department of Commerce and Labor to the Department of Public Health; a part of the Bureau of Animal Industry and of the Bureau of Chemistry from

the Agricultural Department to the Department of Public Health; and the Bureau of U. S. P. H. and M. H. Service from the Treasury Department to the Department of Public Health.

This assembling of the several public health agencies into one department is impossible, for the Army Medical Service will still be the Army Medical Service, and will be unaffected by such an exchange; and the Navy Medical Service will still be the Navy Medical Service and will be unaffected by it. The actual assembling will be the transferring of the Bureau of Vital Statistics from the Department of Commerce and Labor to the proposed Department of Health; and the similar transfer of parts of the Bureau of Animal Industry and of the Bureau of Chemistry to the proposed Department of Public Health; and something done—the Lord knows what, to the Bureau of Public Health and Marine Hospital Service, wherein it will be transferred from the Treasury Department to the proposed Department of Health and made over into a department with a new head and whatever else the fortunes of politics might make.

It has not been shown just what advantages would be derived from such transfers of bureaus. Nor for that matter has it been shown that any advantage would be derived therefrom. For example, what advantage would be derived from transferring the Bureau of Vital Statistics from one department to another, where it would still be a bureau? Or a part of the Bureau of Animal Industry? Or a part of the Bureau of Chemistry? Or the Bureau of P. H. and M. H. Service, where it would be absorbed, more or less disorganized, and reorganized by, if not a less capable director, at least one that is less familiar with the needs of the service? The practical legislator must be shown the advantages of such changes before he will seriously consider them.

The second argument advanced by the advocates of a department is that it will prevent a duplication of service. The practical legislator will say that sounds good, but he will want to know where there is a duplication. That the Bureau of Animal Industry has a laboratory and that the Marine Hospital Service has a laboratory does not say that there is a duplication of service. Indeed each bureau has several laboratories, but it has not come to our notice that any two of them are doing the same work. The legislator will need to be shown; he will not take it on faith.

That a department will lend an added dignity to the Public Health Service, no one will deny, but that dignity will make for better health

will also have to be shown. And until the advocates of the measure can show to the satisfaction of congress that there will be some distinct gain in efficiency by transferring these several bureaus from one department to another; and that such transfer will make for economy by preventing a duplication of work; and that the added dignity of a department over a bureau will make for more efficient service; one or all of these, they are going to have an uphill pull trying to convince Congress of the wisdom of tearing down the efficient system already in vogue and building up an untried one to take its place.

And the weakness of the claimants for a department will be all the more apparent when we come to consider some fundamental objections to it, all of which have got to be more than neutralized by the advantages of the proposed system before the legislator can show even a reasonable excuse for the change.

One of the fundamental objections is found in the fact that it is not in keeping with our principles of government to limit the President in the selection of the members of his cabinet. He is therefore free to choose for the secretary of the proposed department whoever he sees fit, whether layman or professional man, and if professional man, he is still free to choose from whatever school or cult or "ism" or schism he sees fit. And with the hundred and one quasi-medical creeds extant in the United States, all enjoying pretty much the same liberties that the hundred and one religious creeds enjoy, it is a matter of considerable chance which creed might enjoy the distinction of being represented in the cabinet. For it is to be remembered that we are legislating not for the present generation alone, but for generations yet unborn.

This pitfall can't be escaped by simply providing that the Assistant Secretary of the Department be a medical man, etc., for that defeats the original purpose of the act, which is to get the medical man in the cabinet, so that he won't have to go through a superior officer to make recommendations. Or to say it another way, as it stands now, the medical man at the head of the public health bureau has a superior officer, the Secretary of the Treasury, between him and the cabinet. As it would stand then, the medical man (known in this instance as the assistant) would still have a superior officer, the Secretary of Health, between him and the cabinet. A veritable case of "tweedledum and tweedledee."

There is still another obstacle connected with these hundred and one several cults, "isms," schisms, and creeds. It might be illustrated

by the capital situation in Florida. The capital is located at Tallahassee. Jacksonville, Gainesville, St. Augustine, Ocala, Pensacola, and probably a hundred other places would like to have it. Every little while one makes a pull for it. Whenever it does, it doesn't get the support of any of the other aspirants, because they all see their ultimate hope vanish with the removal from where it is. And this explains the existence of the organization known as the Medical Freedom League—an organization made up of quasi-medical creeds, cults, "isms," and schisms, all to oppose the creation of a department of public health.

Now it is perfectly feasible to have a department of health in Cuba. There the sciences are all under the university of Havana. Nothing scientific is recognized that does not have the stamp of approval of the university. This does away with the complication arising from a multiplicity of cults. And withal is an admirable system. But Cuba, it is to be remembered, is in a class to itself in public health affairs. A combination of circumstances not to be found elsewhere, in a republican form of government, has resulted in a public health department, the efficiency of which is just as rare. This combination, among other things, makes a department both feasible and necessary. But in Europe it is quite different. The two leading monarchical, and the two leading republican governments have the public health organization subordinated to some other department of the government, just as it is in the United States at present.

To be perfectly frank, it is not apparent to us just wherein a department would have any higher coefficient of efficiency than a bureau. A department would have no more power to enter a State than a bureau has; could do no more to prevent the introduction of epidemic disease from abroad than a bureau can; could do no more to control or eradicate epidemic disease once it gets established in the country than a bureau can; could institute no new line of research that a bureau can't; could command no better administrative ability than a bureau can. In a word, a department could have no more authority, no higher scientific attainments, and no better administrative ability than a bureau, and

"All the rest is leather or prunella."

One of the arguments that have been advanced in favor of a department is it ought to be a model for the State public health departments. What States, pray? Certainly not those that already have efficient organizations, for they need no models. They are capable of

discerning their own needs without having a pattern made for them in Washington. They would not modify their own organizations to conform to a Federal pattern. And this by the way includes a great majority of the States at the present time. Public sanitation is developing rapidly in all parts of the country—as rapidly as local conditions will allow, and a department in Washington, even if it were better than a bureau, would not advance the cause.

It would rather seem presumptuous on the part of the Federal government to create a department for a reason of that kind, for it would seem to imply that the States are not capable of self-government, and while that may be true, it would not be nice for the Federal government to say so.

If the advocates of the measure feel that they need a model for their own particular States, there are plenty of State organizations that would serve as excellent models, better in fact, than a Federal department would serve for a State model.

For these and other reasons, we repeat that we fail to see the advantages to be derived from a department over a bureau, even sufficient to offset the disadvantages of multiplying cabinet offices, tearing down an efficient bureau of public health, and erecting in its stead a more elaborate, untried, and possibly top-heavy scheme. The better plan would be for congress to enlarge the functions of the bureau, as the needs of the service demand. This would do all that can be done for the public health, and would have all the advantages of the department, without the fuss and feathers.

SOME FAULTY NOTIONS

If there is one thing more than another which the State Board of Health of Florida has tried to impress upon the people of the State, it is practical methods in connection with sanitary management or supervision. And by practical methods is meant doing those things for the betterment of individual or communal health, which can be understood, for which there is a good and sensible reason for acting, and which experience and tried-out knowledge support the way of teaching.

Theories oftentimes are pleasing and engaging, but never convincing, and to accomplish the greatest good, confidence must be inspired for what is taught, and speculation should be shunned.

If people when talking about "this or that," as being "unsanitary," will just stop for a minute and consider what "sanitary" means, and

then seriously ask themselves if what they are calling "unsanitary" is really detrimental to health, and will, or can cause disease, sensible deduction and sober reason will soon take the place of vague speculation, and there will be less impracticable suggestions and ideas expressed.

When we hear people say, "Beware of the night air," "it is dangerous to health," and "if you breathe the night air in malarial sections you are sure to contract malaria," what do they really mean? Why should not people breathe at night as well as in the daytime, and can anybody live without breathing at night, some kind of air, and is not all air we take in our lungs at night, night air? Yet, this advice is most commonly given to newcomers in certain sections where land is low, marshes exist, and the general topography is one that is usually called "malarial." And it is on this kind of advice which many have accepted, and which, unfortunately, our own medical profession has not been blameless in promulgating, individuals are found who shut up their bedrooms to keep out the night air, unconsciously vitiating what little blood oxydizing material is left in the atmosphere of the sleeping apartment. It takes but a little mathematical calculation to figure out the length of time it will take a sleeper to use up the life producing quality of air in a closed sleeping room of ordinary dimensions, for according to physiology a person sleeping naturally will breathe about 18 to 20 times a minute, and with each inspiration and expiration will take in and give out about thirty cubic inches of air, and of the expired air about 4.3 per cent is carbon dioxide. It is the carbon dioxide which is injurious, for an atmosphere breathed more than twice is calculated to bring about distressing feelings of drowsiness, headache and mental dullness, and if carried to its fullest saturation, stupor and death. To shut out night air, therefore, on the supposition that it is harmful is another one of the false ideas connected with health preservation or disease prevention. Please don't forget this fact; that the Plasmodium of Laverans, the malarial parasite, is not breathed in, but is injected by a mosquito, which has been previously infected. I say, please don't forget this fact, for it is a fact, but please at the same time, do forget about the old and one-time notion of "malarial air," and open your windows both winter and summer, thus giving nature a chance with fresh air to invigorate you while you sleep.

↔
ODORS

Almost daily complaints come to the office of the State Board of Health, and requests at the same time asking for an abatement of

foul odors, or removal of dead animals, sometimes within municipal lines, but more often outside of incorporated towns and settlements. A horse has died along the roadway—fallen dead perhaps from lack of food—and the owner has unhitched and left the animal to the buzzards and natural elements to disintegrate and destroy. A nearby neighbor says the odor of putrefaction will create sickness and wants the carcass removed or buried, writes to the Board some hundreds of miles away from the scene, to “send some one at once.” In fact, “come a running,” to remove the nuisance. It is an old-time notion that things rotting—animal or vegetable—will produce sickness of some kind. The dead animal is certainly a nuisance to comfort and to the nostrils, but not to health. A decomposing animal, even a human which in the process of putrefaction gives off more nauseous and sickening odors than all other animals, will not cause a disease. An animal in the process of decay can not cause smallpox, nor measles, scarlet fever, typhoid fever, malarial fever, plague or cholera, because each of these diseases has a specific organism of its own to produce or reproduce its kind. What sickness, then, can it cause? An animal, human or brute, not infected, is as harmless to public health while in the rotting process, as would be the separation into the natural elements of air and vapor of an ant or a humming bird. Therefore, we must conclude that “bad smells” are not disease-producing agencies, although they may be disgusting and nauseating to refined sensibilities.

WEEDS

Nearly every city council when it first organizes, especially if it is a “newly incorporated” settlement, “runs counter” to a proposition which in the absence of something better to be suggested for the improvement and conservation of the health of the “dear people” proves to be a bone of contention and dispute later on. “The weeds should be cut,” says one member, “they are injurious to health.” Another who has been reading the **HEALTH NOTES**, asks “Why?” “What sickness will weeds produce?” “Well I have always heard weeds keep the sun from the earth and promote dampness, and in tropical climate dampness is injurious to individual health.” Now let us reason together, the **NOTES** and the reader: What or why should weeds be objectionable from a public health standpoint? In what particular do weeds differ from any other luxuriant vegetation? How are weeds more objectionable to health than roses or morning glories or honey-

suckle? That is, as affecting the health, by causing sickness, or aiding in spreading disease. Of course it is conceded that flowering plants are more pleasing to the eye, and agreeable to the nostrils, but as vegetable products coming from the soil, it is not granted that a profusion of growth of one is to be approved of, and a rankness of growth of the other condemned unless the name has something to do with the contention. The name "weed" carries with it an opprobrium that suggests or indicates something worthless and disgusting, but is that altogether true? Many shrubs which in their profusion may resemble weeds are valuable in the medicinal line, such as the jimson weed, deadly nightshade, foxglove, belladonna, digitalis, and not the least, the rag weed, which lately is said to have valuable medicinal qualities as a remedy for hay fever.

Too often municipal authorities confuse unsightliness and disorder with disease producing agents. Indifference and sloth are really not factors of disease or spreaders of disease, although such conditions are humiliating to public-spirited citizens. Generally the initial step in the municipal sanitation instituted by a new committee in the city council is to tackle the weed question, greatly to the annoyance and temper of the owners of vacant lots.

We do not dispute the argument that a nicely-kept grass lawn is more sightly and pleasing and conveys to visitors the idea of a progressive public spirit on the part of the citizens of a place, city or hamlet, than a rank growth of vegetation, but we do contend that such rank growth per se has nothing in the world to do with the health or sickness of a community or individual.

Yes, plant grass and cultivate a lawn in place of unsightly vegetation, but do it because of municipal pride and not on the ground of health demands. Growing weeds or cut weeds or dying weeds will not create sickness of any kind. Weeds of themselves are harmless. Energy directed against weeds is misdirected and is an impracticable and faulty notion of sanitary requirements.

THE COMMON DRINKING CUP

When some one says, it does not matter whether layman or professional man, that the common drinking cup is a prolific source of disease dissemination; the question naturally follows, "How do you know?" What is your proof, and what diseases are thus transmitted from person to person? Simmered and chased down to proof, there is none. Speculation and conjecture and "it ought to be if it isn't,"

are vague, indefinite and untrustworthy. For people to use a vessel after one another without washing the cup or glass is uncleanly and only in this way can it be said such a practice would be unsanitary, for on general principles cleanliness and sanitation are synonymous terms. Hotels, boarding houses or even private homes do not destroy every vessel after it has been once used. Cups and glasses and plates are used over and over again after being washed every day and perhaps several times during each meal if the supply is short.

We do not know that there are any health officers or sanitarians who would advocate the destruction of vessels after once being used. If the common drinking cup is rinsed or washed out before using, wherein is it different from the cup or glass cleansed each time it is used in a hotel or boarding house? The NOTES has always thought that the common drinking cup has been a much abused and vilified member of society. By insisting upon abandoning or doing away with the common drinking cup and the vague indefinite reasons given for the advice, people lose confidence in their sanitary teachers. Why? Because it is advice impossible of universal acceptance and impracticable to execute.

Some little time ago the State Health Officer of Florida wrote to the Secretary of the National Society for the Study and Prevention of Tuberculosis and asked if there was a single case on record or if it is known to the association that the use of the common drinking cup or the drinking of one person after another had been the means of spreading tuberculosis; this is what Dr. Farrand writes:

NEW YORK CITY, October 28, 1909.

Dr. Joseph Y. Porter, State Board of Health, Jacksonville, Fla.

MY DEAR DOCTOR PORTER—I have your letter of October 25th. I am sorry to say that I can not give you any definite information on the particular point about which you inquire. I am like, I think, most others, very skeptical as to the communicability, to any marked degree, of tuberculosis through drinking cups or glasses. That such communication is possible is, of course, true, but I fancy the amount of infection through that agency is very slight. Definite proofs to this effect, however, I can not give, nor do I know of any literature bearing particularly on it. I will take up the point with some of our pathologists and ask if there is any recent work along that line. I have long felt that the campaign against the promiscuous use of drinking cups, etc., should not be based on tuberculosis considerations but rather on the known communicability of syphilis, and other acutely infectious diseases.

There is a possibility of syphilitic infection being conveyed from the mucous patches in the mouth of a syphilis individual to another individual with aphthous sores by using a glass or cup without being

washed or rinsed as Dr. Farrand suggests, but the danger is so exceeding slight that it is to our mind hardly worth considering other than in the light of cleanliness, which factor State Boards of Health should esteem it their special functions to teach. I have yet to see a single person of cleanly habits who will use a glass or cup, even among the members of the same family, unless it is cleaned or rinsed.

The various devices designed by several enterprising commercial firms for furnishing individual cups or drinking vessels are to be commended and encouraged because of the teaching in personal habits of cleanliness which such an education furnishes and besides are comfort-giving conveniences to be had at a slight cost to the individual user. When people learn to be cleanly in their habits—and it is the privilege and likewise the duty of Health organizations to teach this principle—it will not be needful, nor will it be required to pass rules and regulations to enforce the practice. Nor can it be assumed that the law will ever be able to compel personal cleanly habits for "this kind only comes" by training and persistent instruction by example.

KISSING

Some years ago the impracticable instructor in sanitary matters had hideous visions of the danger lurking in a kiss, and immediately the followers of new whims and isms, in this line, raised a cry to High Heaven that kissing should be prevented by statutory enactment and that even the "holy kiss" commended by saints should be stopped. Ridicule—the most potent weapon known in these times—by press and magazine writers soon put in the shade a vagary which had so little to support it as a health demand, and so absurd in its expectations. Right here again, comes in the principle of cleanliness. The man who has permitted himself to be infected with a disgusting disease, the manifestation later on showing itself in infectious ulcers in his mouth, is not a clean person and he knows it. Therefore he should be imbued with a spirit which would prevent him from conveying the poison of his mouth or lips to that of an innocent girl. If this quality of manhood is not in him, there is no law that has yet been placed on statute books which would prevent the injury should he be debased enough to inflict it.

Let syphilitic and tuberculous—pulmonary—people be taught that they are likely to do incalculable injury to friends by kissing on the mouth, but a war waged against kissing is a proposition which under lawful uses and loving motives will meet with defeat to whomsoever

has the temerity to suggest it. Let State Boards of Health, therefore, confine their teaching, instruction and recommendations to practical methods of sanitary management, and not attempt to engage in theoretical agitations which are untried and unproven.

THANK YOU!

While the State Health Officer receives many letters each month which narrate and attest the great interest manifested in the conservation of the public health, yet the following is of more than usual interest and is so valuable that it deserves a place in the publications of the State Board of Health. The name of the physician, his town and county, are omitted for obvious reasons.

Dr. Joseph Y. Porter, Jacksonville, Fla.

DEAR SIR—I will write you a few lines and let you know that we have not given up our fight against the hookworm. We neglected the indigent cases for a while during the winter and tried to push the work among the pay patients.

I was very much disappointed at your inability to let your assistant stay with us longer but hope you will remember our county when you start out again.

I find that the work is not without its drawbacks. Many cases leave me and go to other doctors after taking one or two treatments and as their belly has been rid of a part of its pest, of course, they get better and they give the other fellow credit for it, holding me up as a fake to all his neighbors.

But among all the dark clouds there are a few shining stars. I have within the last year seen two girls who were doomed to die with tuberculosis by their family doctor, and had suffered the mental torture of that horrible death for two years, come out and bloom like a June rose under the influence of a few doses of thymol and salts, and to add to the pleasure, I saw one of them only a few days ago a happy bride with the picture of health on her face. Now, while our compensation is very poor in these cases, I get more real pleasure out of doing the work than any other, so you can depend on me for one doing his best.

We have one case of smallpox with us at this time, but as our vaccination was almost complete last winter, and caring but very little about those who would not respond to our call, I have made only a feeble effort at any isolation this time.

Yours very truly, etc.

The prevalence of smallpox in the spring prevented a continuation of the campaign against hookworm disease in this doctor's county. As soon as vaccination had been generally done, smallpox decreased, but a few cases have occurred since among those who would not be vaccinated—the anti-vaccinationists.

Just as smallpox ended its visit in that county, the adjoining county began to report many cases. Another epidemic was on hand to man-

age, and the fight against hookworm disease was left to local physicians to conduct.

Another letter, appended hereto, relates other features of the hookworm work:

Joseph Y. Porter, M. D., Jacksonville, Fla.

DEAR DOCTOR—Enclosed you will find case records of eleven cases of uncinariasis, six of which are entirely well, the other five being apparently well. (Cannot get further specimens for examination.)

I try to handle these people with gloves, give them all the literature I can get together on the subject, but I am sorry to say that a great many are unable to "see the light." I am conducting quite a little campaign on hookworm disease, not for the money there is in it—for there is no money in it—but for the sake of humanity and future generations. It's a thankless job, most certainly in the majority of cases, on account of lack of education. I am located in a neck of woods where superstition, ignorance and religious fanaticism prevail. A large percentage of the people can neither read nor write and are proud of it apparently. I have slipped in one treatment on about 200 people, white and black, without their knowing what the treatment was for, and the results from a health standpoint have been very gratifying.

I have also put the "fear of God" in the hearts of everybody I come in contact with as regards "ground itch," teaching them the prophylactic treatment, associating said ground itch with hookworm disease with those whose intelligence would warrant it; with others associating it with such symptoms as they wish to avoid a repetition of.

I could distribute a good many copies of the publication of October, 1910, on hookworm disease, to good advantage, if I had them.

Sincerely, etc.

These doctors are to be congratulated on their sincere and constant efforts to better the conditions existing in their respective towns and counties, and the State Board of Health gives them every cooperation possible.

These instances are from every-day life; they not only illustrate what is or may be experienced in a campaign against hookworm disease, but possibly if others think over these experiences they will be a guide in handling similar situations in other parts of the State.

The physicians of the State, as well as the citizens in general, should remember in requesting containers for specimens to any of the laboratories, or in asking for vaccine, that their requests should be addressed to the Jacksonville office of the Board.

The Central Laboratory at Jacksonville distributes containers throughout the State, upon request of physicians, and the containers are furnished with proper labels so that the work is divided in proper proportion among the laboratories.

SANITARY LEGISLATION IN FLORIDA

It is pleasing to state that the interest in sanitary matters has so increased in the State during the past few years that of the measures relating to sanitary matters introduced during the 1911 Legislature and enacted into law, the only one urged by the State Board of Health and presented to the Legislature by a resolution of the Board when in annual session, was that providing for a Sanitary Engineer. The other measures—three—were the conception of the Governor and of the Legislature.

HOSPITAL FOR INDIGENT CRIPPLED CHILDREN

CHAPTER 6133 (No. 14).

AN ACT TO AUTHORIZE AND DIRECT THE STATE BOARD OF HEALTH TO ESTABLISH A HOSPITAL FOR THE TREATMENT OF INDIGENT CRIPPLED CHILDREN, AND PROVIDING AN APPROPRIATION THEREFOR.

Be it Enacted by the Legislature of the State of Florida:

SECTION 1. That the State Board of Health be, and it is hereby authorized and directed to establish at some suitable and convenient location in this State a Hospital for the treatment of indigent crippled children of this State. In such hospital indigent crippled children of this State shall be received and treated free of charge.

SEC. 2. That for the purpose of Section 1 hereof the State Board of Health is hereby authorized to purchase a plot of ground and erect thereon a building suitable for such purpose, or to purchase a plot of ground with building already erected, in its discretion. For such purchase and for the purchase of suitable instruments, apparatus, furniture, fixtures and other articles necessary for such an institution, the sum of twenty thousand dollars, or so much thereof as may be found necessary, is hereby appropriated, payable from the State Board of Health Fund.

SEC. 3. That for the purpose of maintaining the hospital herein provided for, and of employing such physicians and attendants as are requisite for the conduct of the hospital, the sum of ten thousand dollars, or so much thereof as may be necessary, is hereby appropriated annually for the two years beginning July 1st, 1911, payable from the State Board of Health Fund. Provided, that until the number of indigent crippled children, citizens of the State of Florida, shall be sufficient in number to warrant the State Board of Health to erect and maintain an institution of this character and nature, that the State Board of Health is authorized to arrange with any sanitarium or hospital in Florida to care for and treat the indigent crippled and deformed children of the State and to pay for such treatment out of the funds of the State Board of Health, not in excess of the amount appropriated by this Act.

SEC. 4. This Act shall take effect July 1, 1911.

Approved May 30, 1911.

SANITARY ENGINEER

CHAPTER 6166 (No. 47).

AN ACT TO AUTHORIZE THE STATE BOARD OF HEALTH OF FLORIDA TO EMPLOY A SANITARY ENGINEER WHENEVER THE SAID BOARD MAY CONSIDER THE NECESSITIES OF SANITATION IN AND ABOUT THE STATE MAY SO REQUIRE AND TO FURTHER PROVIDE FOR HIS COMPENSATION.

Be it Enacted by the Legislature of the State of Florida:

SECTION 1. That the State Board of Health of Florida be and is hereby authorized to employ or engage the services of a Sanitary Engineer, whose expert knowledge in the subject shall be determined by the State Health Officer, whenever in the opinion of the State Health Officer the necessities of sanitation in and about the State may require an expert opinion and decision in regard to construction of sewers, drainage of a sanitary character, the disposal of sewage and domestic wastes, or the institution of potable water supply for any of the cities or towns of the State of Florida.

SEC. 2. That the Sanitary Engineer, as provided for by Section 1 of this Act, shall only be employed at such times and such periods as in the judgment of the State Health Officer his expert services may be required.

SEC. 3. That the compensation for services of the Sanitary Engineer provided for in Sections 1 and 2 of this Act shall be fixed by the State Health Officer with the approval of the President of the State Board of Health.

SEC. 4. That all laws or parts of laws in conflict with any of the provisions of this Act are hereby repealed.

SEC. 5. That this Act shall take effect on the approval by the Governor.

Approved May 8, 1911.

SCREENING HOTELS, BOARDING HOUSES AND RESTAURANTS

CHAPTER 6195 (No. 76).

AN ACT MAKING IT A MISDEMEANOR FOR ANY PERSON OR PERSONS TO OPERATE ANY HOTEL, BOARDING HOUSE OR RESTAURANT WITHIN THIS STATE WITHOUT KEEPING ALL DOORS, WINDOWS AND OTHER SIMILAR OPENINGS IN DINING ROOMS, KITCHEN AND PASSAGeways BETWEEN SAME SCREENED, AND FIXING A PENALTY FOR FAILURE TO COMPLY WITH THE PROVISIONS OF THIS ACT.

Be it Enacted by the Legislature of the State of Florida:

SECTION 1. On and after the passage of this Act it shall be unlawful for any person or persons to operate any hotel, boarding house or restaurant within this State without keeping all doors, windows and other similar openings to dining rooms, kitchens and passage ways between same securely screened with screen wire not coarser than 12 mesh to the inch.

SEC. 2. Any person or persons found guilty of violating the provisions of this Act shall be deemed guilty of a misdemeanor and upon conviction fined not exceeding fifty dollars. Each day's business conducted in violation of the provisions of this Act shall constitute a separate offense.

Approved May 30, 1911.

HOG CHOLERA SERUM**CHAPTER 6167 (No. 48).**

**AN ACT TO ESTABLISH, MAINTAIN AND OPERATE A HOG CHOLERA SERUM PLANT,
TO AUTHORIZE THE STATE BOARD OF HEALTH TO MAKE RULES FOR THE PRO-
TECTION AND DISTRIBUTION OF SAID SERUM.**

Be it Enacted by the Legislature of the State of Florida:

SECTION 1. The State Board of Health is hereby authorized and empowered to establish, maintain and operate a plant for the protection and distribution of Hog Cholera Serum for the purpose of distribution to the farmers of this State upon application therefor.

No cost shall be charged by the State Board of Health for the Hog Cholera Serum so distributed.

SEC. 2. This Act shall go into effect upon its passage and approval by the Governor, or upon its becoming a law without his approval.

Approved June 3, 1911.

The difference between varioloid and smallpox is about the same as the difference between a kleptomaniac and a common thief—purely a social difference.

Two things that everybody ought to know by this time:

That the civil war is over and

That vaccination prevents smallpox.

The idea of slaughtering poor little typhoid flies! A Miami mother recently said to her small son who was snapping flies to death with a piece of rubber: "Son, don't kill the little things. They are God's flies." And in a minute she heard him murmur as he swatted another to its long home: "God's fly—go to God."—*Miami Metropolis.*

Box 394
Hoffman, Fred E.



Health

Hoffman, Fred'k. L.
Box 594,

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No. 9 (^{New} Series)

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Tampa, Fla.

HON. H. L. SIMPSON, M. D.,
Pensacola, Fla.

HON. JOHN G. CHRISTOPHER,
Jacksonville, Fla.

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Laboratories: Jacksonville, L'Engle Building.
Tampa, Florida Avenue and Constant Street.
Pensacola, City Hall.

Sent to any address in the State for the asking.

If you receive it without asking, it means that someone else has requested
it for you.

When you change your address drop us a card.

When giving change of address, give both the old and the new.

Anything you want to know about the public health we will try to tell you.

Any information you want about communicable diseases of domestic animals
we will help you to get.

Address communications to Jacksonville, Fla.

Forbear not sowing because of birds.—From "Outlandish Proverbs."

“ THOU SHALT NOT BEAR FALSE WITNESS AGAINST THY NEIGHBOR ”

There is a certain element in Florida—small, it is true, we are happy to say, and with but feeble following—who persistently delight in misrepresenting what the State Health Officer has said or has written. They would make it appear that the State Health Officer is now trying by every means in his power to force by law the citizens of Florida to be vaccinated, whether they want to be or not. Such statements, whether written or spoken, are deliberate untruths and the writers and idle talkers know they are falsifying when they circulate such statements, because there are printed records to prove the contrary.

It is true that in the early days of the State Board of Health the State Health Officer did seek to convince the legislature that in compulsory vaccination the most economical management of smallpox could alone be found. He gave facts, figures and proofs to substantiate his statements and prove his assertions.

The legislatures have seen the matter differently and were seemingly content to waste thousands and thousands of the tax-payers' money to nurture a disease occurring principally among a class who contribute little or nothing to the intelligence of the State but have always been a source of great expense in criminal management. As the people of this commonwealth apparently agreed to and approved of this policy (for their representatives repeatedly affirmed the same), the State Health Officer has confined his administration of smallpox to the strict letter of the statute and has abandoned any further attempt to effect a scientific, rational and economical management, but has nevertheless given time and effort to practical teaching by repeated citation of incidents and circumstances which undoubtedly bear out his contention.

“ *A truth half told* is worse than a—” (let's say falsehood, for its synonym is too harsh to be spoken in decent society), because in a truth half told there is a malicious attempt to conceal certain facts upon which convincing conclusions are drawn and based, and because, further, there is an evident desire to distort—as in this instance—a preferred advice into a command or recommendation for a legal enactment. The State Health Officer of Florida has always had the courage of his convictions and the manhood to assert them, irrespective of whether they were followed or coincided with the wishes or opinions of any who are opposed to his advice. He has the consciousness of having dealt honestly and squarely with the people of Florida. Can his critics say as much?

What he believes to be for the best interests of the health of the citizens of this State he will continue to advise and recommend, regardless of what the "know-all's" may think, write or say. And when the Board and the intelligent people of the State want him to resign, a mere hint from the Board of lack of confidence in his honesty and integrity of purpose and teaching will find the position at their disposal to another. There are some people who stubbornly shut their eyes to the truth and close their ears to all argument and reason. It is useless to try to convince such people of anything that is sensible or enlightened.

VAPORINGS

To any sensible and rational individual it must seem to be the height of silly childish twaddle and asinine stupidity for any one, because of their own careless indifference, prejudice or ignorance, to lay the blame of contracting a preventable disease on another. It might as well be said that the health authorities of a city or State are responsible should a person shoot the end of his finger off, or wound his hand, because carelessly placing the member over the muzzle of a gun and then intentionally or accidentally releasing the trigger; or that a fire department is responsible for an extensive conflagration, as to charge the health authorities for a person contracting smallpox. In the first place, if the customary caution is followed, no accident ever occurs, and in the second place, if the advice of those competent to give it is heeded, smallpox is an unknown disease.

WASTEFUL

It was Dr. Hegg, the State Health Officer of the State of Washington, we think, who very sagely remarked that it was a criminal waste of the people's money to maintain hospitals for the care of smallpox patients. If we have quoted Dr. Hegg incorrectly, we apologize, and are perfectly willing to take all responsibility for saying the same thing and having the same opinion. It is wrong and it is a crime to spend money to nurse up and keep going a disease which can be prevented from occurring in the first place. If there was a known way to prevent conflagrations it would be held to be a malfeasance in office for city governments to maintain fire apparatus and costly methods of arresting fires. The press would rise up in all the indignation of their powerful voice and pen to protest against a sinful squandering of the tax-payer's money. Why? Because it could be pointed out that with such and

such done there would be absolutely no cause for fear from incendiaryism or from accidental burnings. Even with expensive means provided for fighting fires, city governments enjoin caution in constructing buildings by enacting ordinances which provide a certain class of material and non-inflammable roofs.

Whenever and wherever the pockets of men are likely to be touched and the commercial life imperilled, it will be found that the majority are not only willing but eager to take advantage of any and every measure which will save a dollar or protect an industry, yet, when their own lives and health are at stake, all sorts of chances are taken and men and women will give a listening ear to those who would belittle efforts to spare them pain, disfigurement, discomfort and perhaps death.

QUARANTINE IN THE MANAGEMENT OF SMALLPOX

SMALLPOX CANNOT BE CONTROLLED BY QUARANTINE, because
ALL CASES CANNOT BE QUARANTINED.

ALL CASES CANNOT BE QUARANTINED, because
ALL CASES ARE NOT REPORTED.

ALL CASES ARE NOT REPORTED, because
ALL CASES ARE NOT RECOGNIZED.

ALL CASES ARE NOT RECOGNIZED, because.
THE DISEASE IS SO MILD IN FLORIDA.

To illustrate how very mild it usually is in this State: last year we had approximately 2,500 cases and only thirteen deaths. There were 1,300 cases reported, but only about one-half the cases were reported till after they were well. Many cases about Tallahassee and in Leon county, and in Jefferson county, and Escambia county, and elsewhere were found after they had recovered, but not before.

The disease is usually so mild in Florida that only about twenty per cent. of the cases leave any permanent marks.

It is milder than measles, scarlet fever, whooping cough, or diphtheria.

It causes fewer deaths than any of these diseases. It is frequently so mild that when the doctor calls it smallpox the people give him the horse laugh. Many cases have fewer than a dozen pustules. Many cases never stop work a day from it. They are sick a day or two with fever and think they have malaria and take a dose of quinine, and then after about forty-eight hours they feel better and go about their business. They may observe a few macules that they attribute to mosquito bites. They pay little attention to them. The macules may get larger or they

may abort and cause very little inconvenience, and SUCH CASES ARE COMMON.

SUCH IS SMALLPOX IN FLORIDA.

The greater half of the cases never call a doctor. And when they do call one it is during the day of the fever before the eruption appears, and he never sees the patient again, for they report better next day and that ends the professional side of it.

Or if the doctor sees the eruption he is thrown off his guard by its very mildness. The cases he has read about are entirely different from this. Most doctors only see a few cases of smallpox during their entire professional career. It is no reflection that they fail to see smallpox in such benign eruptions. Indeed, doctors of wide experience are not always able to say definitely whether a given case is smallpox.

And herein lies the difficulty. IT IS THE VERY MILDNESS OF THE DISEASE THAT MAKES IT IMPOSSIBLE TO CONTROL IT BY QUARANTINE.

To give some definite instances illustrating the above, I was called to DeFuniak Springs a few weeks ago to see some eruptive trouble in the family of a prominent citizen of that place. I AM UNABLE TO SAY TO THIS GOOD DAY WHETHER THAT WAS SMALLPOX. It may have been or it may not. I incline a little to the belief that it was. But that is by no means definite. It is not for lack of experience with the disease, for it has fallen to my lot to treat during the last eight years some fourteen hundred cases. But that the line is so poorly defined between the smallpox and not-smallpox, that no amount of experience will enable one to always arrive at a clear unquestioned conclusion.

Again: It has not been a great while since a certain physician of Jacksonville reported a case of smallpox near the union station. We had no smallpox in town at that time. I went to see the case with the physician. I told the patient frankly that I did not know. He elected to take hospital treatment. After a period of about seventeen days he was dismissed, and I am unable to say to this time whether he had smallpox.

Again: A soliciting agent for one of the railroads in Florida, developed an eruption over in Riverside. He was taken to the hospital and remained there some three weeks. And he is another that will never know whether he had smallpox.

Dr. Young has had a liberal experience with the disease. So have the local physicians in Ocala. Two years ago the local physicians were in doubt and sent to the State Board. Dr. Young was detailed

to Ocala. He was still in doubt. I went, and I was no more able to clear the doubt than he or they. And what is more, there were several cases, but not one that would enable us to make a clean-cut decision.

Instance after instance like the above could be related till they would amount up to hundreds.

Now, if a physician whose business is to look after smallpox, and who has had a liberal experience with the disease, is not able to say in all cases whether it is or is not, how much less should be expected from one who sees only a few cases incidentally in his life? And if the physician of experience fails, what about the laymen who has never seen a case, likely as not? And then what about the negro?

I have pointed out that these mild cases are not sick. Many of them never go to bed with the disease. Many of them never lose a day's work. But the most important thing is that FEW OF THEM CALL A DOCTOR. If they did there would be fewer, but still many, unrecognized cases.

Now what control can be exercised over a case that we know nothing about? And yet these UNRECOGNIZED CASES spread the disease.

NOW, WILL SOME ONE PLEASE SHOW US THE WAY OUT?—a remedy that will work. It is easy to say quarantine all cases and that will control the disease. It would. But how is it to be done? What is needed is some method by which these unrecognized cases can be recognized, found and reported, for you must "first catch your rabbit."

One man said make all eruptive diseases reportable. So far so good. But the public will not stand for the quarantine of chickenpox. And when the doctor thinks it is chickenpox, that is the end of the law.

Besides that would only provide for those cases that have a doctor. What about those that don't call a doctor? Will some one please show us the way out?

Again: If we had a disease that could be recognized in all cases we would still have an insurmountable difficulty in this: That people PURPOSELY AND MALICIOUSLY conceal smallpox. The motives for this are not always clear. Some conceal it because they don't want to be quarantined, hence THE MORE RIGIDLY IT IS QUARANTINED THE MORE IT IS CONCEALED. I have found it hiding under the mattress, between the springs and mattress. I have found it up in the loft. I have seen cases hide out for days at a time. In 1904, at what is called the Ronalds place, some four miles north of Tallahassee, was a family of some nine or ten. They all had smallpox

except the old man. (He had been vaccinated and the others had not). I saw them daily for a period of some three or four weeks. Finally one of the neighbors developed it and said she thought she got it from "Jennie." Who was Jennie? I was told that Jennie was one of the family I had been treating. I had never seen Jennie. I went back and told them I wanted to see Jennie. They called her up out of the swamp close by. She was about well at the time. She had had a severe case. She had evaded me all during the time so that I was never aware of her existence till one of the neighbors developed the disease. And Jennie had been visiting round the neighborhood from the time she was able.

Laws might be made to punish such offenders, but the damage is already done. Punishing them after will not recall the infection that they may have spread.

DON'T ALL SPEAK AT ONCE, BUT WILL SOME ONE PLEASE SHOW US THE WAY OUT?

Under an act of the recent legislature the State Board of Health is now authorized to vaccinate hogs against cholera. The disease appeared a few days ago at Waldo, whereupon the veterinarian of the State Board of Health was detailed down there. He vaccinated some sixty head. Every knock against vaccination is a boost. Every year sees its usefulness extended. This is a long step in the right direction. It will save the farmers of the State many thousand dollars a year in the lives of their hogs. The time isn't far distant when every man who knows enough to raise a hog will know enough to get it vaccinated. Exception will only be made to those not worth saving.

PLEASE HEED

The State Board of Health is always pleased to hear from its friends on matters relating to State medicine—sanitary subjects—but correspondents should bear in mind that if a reply to their letters is expected or desired, addresses should be given; particularly is this the case with traveling men, who change their abodes almost daily. Quite recently the State Health Officer was written to from a point on the lower East Coast on a matter in which one of the State statutes was being or had been violated: no less a commission of a misdemeanor: reporting that yellow fever existed in another part of the State. If the writer will give the State Health Officer more definite information in regard to this malicious slander, steps will be taken to land the traducer of Florida's good health in one of the State's turpentine farms.

Idle gossips will find it unwholesome to indulge in small talk of this kind.

The office has also received an anonymous communication from some one in Ocala complaining about the Board not giving attention to the kind of corn that is being sold in the State. If he will kindly let us know who he is we will be pleased to answer him.

DISEASE OF PINES

It is the function of the State Board of Health to deal with disease. It doesn't matter whether that disease be among human beings or lower animals—it is disease, and in order to understand the fundamental principles of disease, it must be studied throughout the organic world; not only the diseases of human beings, but of lower animals, of plants, of the lower orders of plants. Indeed, a great part of the study of human disease is the study of the lower forms of plant life.

It is not going far afield, then, to have a word to say about an important disease among our Florida pines. The U. S. Bureau of Entomology has issued a bulletin on this disease, and quite recently a circular of instruction concerning it. It ought to be of special interest to timber men. The circular is reproduced below in full:

**United States Department of Agriculture, Bureau of Entomology,
Washington, D. C.**

PATCHES OF DYING TIMBER A MENACE TO THE HEALTHY TREES

Investigations have shown that a patch of dying pine anywhere in the Southern States is a menace to the healthy pine within a radius of three or four miles. The broods of the southern pine beetle developing in the bark of the trees of one such center of infestation may swarm in any direction and settle in the healthy timber. Thus other large patches are killed until nearly all of the large as well as the small pine over extensive areas is dead.

When these centers of infestation are numerous within the area of a county or even a large section of territory, they can only be compared with the starting of so many forest fires and, as has been demonstrated, they may lead to far greater destruction of merchantable pine than has ever been recorded as resulting from fire or from storm in the Southern States.

REQUIREMENTS FOR SUCCESS IN PROTECTING HEALTHY PINE.

The essential requirements for success in the protection of the healthy pine are:

First: General information regarding the habits of the beetle and a knowledge of the methods of control.

Second: *Unity of action among owners of pine* in strictly adhering to the essential details of authoritative advice. No one owner can insure the protection of his timber so long as there is a neglected patch of infestation within a radius of two or three miles.

THE MORE IMPORTANT EVIDENCES AND FACTS.

1. If in clumps or patches of pine where there is no plain evidence of serious injury by fire, the foliage fades to pale green and changes to yellowish and pale brown, it indicates that the trees are dying from the attack of the southern pine beetle, and that the bark on such trees is infested with the developing broods of minute white grubs and transforming beetles. Therefore such trees are a *menace to the living trees*.

2. If the trees have reddish brown and partially fallen foliage or if all of the foliage has fallen, it indicates that the breeds of beetles have emerged and that the trees are no longer a menace to the living trees.

3. If the trees die during the period between the first of March and the first of October, they will be abandoned by the broods of beetles within a few weeks after the foliage begins to fade.

4. If the trees begin to die during the period between the first of October and the first of December the broods of beetles will remain in the bark until in March or April. If the trees die during the winter months the broods will remain in the bark until about the first of May.

5. If a pine tree standing among or near a grove or woods of living pine is either struck by lightning or felled and barked or split into cordwood during the summer and early fall, it will, as a rule, attract the beetles within a radius of three or four miles and result in the starting of a new center of infestation and in the death of a large number of trees.

ESSENTIAL DETAILS IN RECOMMENDED METHODS OF CONTROL.

There are certain essential details in the recommended methods of combating the southern pine beetle which must be observed in order to avoid not only serious mistakes, but possibly ultimate failure:

a. The principal clumps or patches of dying trees which are actually infested by the broods of the destructive beetle, as indicated by the fading and dying foliage or otherwise, should be located and marked during the months of November, December, January, and February. In order to do this work properly experience or special instruction is required. Therefore, some one who has had instructions

should have charge of the work in each important area in which control work is to be undertaken.

b. The broods of the beetle in the bark of the main trunks of at least 75 per cent. of the infested trees within an area of eight or ten square miles or more must be destroyed before they begin to emerge.

The broods may be destroyed by one or more of the following methods:

1. The removal and burning of the infested bark from the standing trees.
2. The removal and burning of the infested bark from the trees after they have been cut down.
3. The scorching of the infested bark, or the burning of the bark and wood after the trees are cut down.
4. The placing of the infested portions of the trunks in water.
5. The conversion of the infested trees into cordwood and the use of the wood for fuel, or
6. The converting of the infested trees into lumber or other products and the burning of the slabs or bark.

The best time to conduct control operations against the southern pine beetle is during the period between the first of November and the first of March.

Attempts should *not* be made to control the beetle during the months of June, July, August, September, and October, *except under the specific advice and instructions of an authorized expert.*

A. D. HOPKINS,
In Charge of Forest Insect Investigations.

Approved:

L. O. HOWARD,

Chief, Bureau of Entomology.

July 5, 1911.

To what extent this beetle is operating in Florida I do not know, but I do know that it is here. In 1910 several pines died on a lot next mine in Springfield. I accordingly took the matter up with the Bureau in Washington, and at the request of Mr. Hopkins, in charge of forest insect investigations, sent some of the bark and beetles from the dead trees, when it was definitely determined that this was the cause of the deaths.

The following year a few more trees died, and at my request some of the neighbors took the bark off and burned it. This I am inclined to think had some effect in checking them, since the number that died last year was not so great as the year before.

But out on the Lem Turner road, a mile or more from where these trees died, there is a group of dead and dying pines now. I have taken the pains to determine that they are infested with the beetles, which is the cause of their death.

The State Secretary of Agriculture was written to and asked if anything could be done about it, to which he replied that there was no appropriation or provision for anything of the kind.

For economic reasons we could heartily wish that some provision were made whereby these insect enemies to our fast disappearing pines could be checked.

Now, won't another speak?

COMPULSORY VACCINATION

There is some opposition to compulsory vaccination as a prerequisite to entering the public schools. Maybe it is well founded. We would not undertake to say. But we do advise people to make careful inquiry and see just what they are going up against when they fail to get vaccinated.

For instance: On or about July 12 Miss X. developed an eruptive disease. She called a doctor. He did not make a diagnosis of smallpox. In a day or two Miss X. felt better, put on a long sleeve to hide her arms, where the eruption was worst, and went to school, went down town, went to church, went to the moving pictures several times, rode on the cars, and did whatever she liked. She continued to do so till she recovered entirely. Then she applied to the State Board of Health for vaccination, when it was discovered that she had had smallpox. This was about July 24th. She was well then, and no further harm could come from it.

How many hundred people had been exposed to Miss X. we have no way of knowing. How many will get the disease we have no way of knowing.

On August third Mr. Y., a brother of Miss X., and living in the same house with her, came down with smallpox. That is the only case we know of so far (August 8th).

I say the only case we know of. There may be a dozen for all we know going about town just as Miss X. did, wondering what the trouble is. Some may turn up after a bit—others may never.

Miss X. had a very mild case. That was what threw the physician off his guard.

It should be understood that Miss X. didn't try to conceal the disease. She tried on the other hand to have it brought to light. Mr. Y.,

who is her brother, as soon as he developed it, went to a physician. The physician did not see smallpox in the benign eruption. Not satisfied, he came to the State Board of Health. It was found that he did have smallpox. He volunteered to go to the isolation hospital where he is now. No attempt on his part to conceal it, or make it out something else. He tried to do the square thing from the first. But in spite of that some hundred people have been exposed.

In spite of the fact that they are above the average for intelligence, and in spite of the fact that they called a doctor, and in spite of the fact that they tried to do the right thing, the disease lurked in the house and in town either in the active or in the incubation stage from about July 2d or 3d (when Miss X. was exposed) to August 3d, and offshots from it may be lurking somewhere in town yet.

Frankly, we see no way of mending matter to intercept incidents of that kind. As soon as it appears on the scene it is taken care of, but what about it during the month that we know nothing of it?

Parents had better make some provision against infections from such hidden sources as that. That is really where the infection comes from anyway. Very few cases are ever contracted from cases that we know of—it is only from those that we don't know of. Miss X. wonders where she got it, just as Miss Z. will be soon wondering where she got it.

Later. The baby in the house where Miss X. had smallpox has come down with it. There were six people in the house—three vaccinated and three unvaccinated. Possibly it was one of those obstinate chances that the three unvaccinated all had the disease and the three vaccinated all escaped!

The NOTES is averse to dabbling into purely medical matters. It is a health pamphlet and speaks only of those matters which relate thereto. Occasionally, however, the NOTES may be pardoned for deviating from a straight line in this respect and present to its readers some interesting as well as instructive thoughts on allied phases of human living.

Clinical Medicine for July has an editorial entitled, "Will Fasting Kill Pathogenic Microbes?" which for good common horse sense and practical ideas is well worth a prominent place in a sanitary journal, for the arguments are applicable to those who pose as leaders and guides in sanitary teaching but fall down in theoretical and visionary absurdities.

WILL FASTING KILL PATHOGENIC MICROBES?

A curious controversy is being waged in the columns of *The Critic and Guide*. Upton Sinclair, of *Jungle* fame, declared that syphilis, gonorrhea and malaria could be cured by fasting! Editor Robinson, in denying this assertion, promptly offered to put up \$1,000 against a similar sum, to put the matter to a critical test. Sinclair quite as promptly backed out, thereby demonstrating the depth (?) of his belief in the things he advocates.

All this is trite, the commonplace experience of every American who knows the game of bluff.

However, there is a deeper significance to the seemingly trivial incident mentioned. It indubitably furnishes evidence on the mental status of the laity as regards matters medical, and that deserves some closer consideration.

Let us assume that Mr. Upton Sinclair is not so much his individual self as the representative of the average man of his class—the ordinarily educated and intelligent newspaper man or *litterateur*. He would certainly claim to be that much, and undoubtedly rates himself much higher. He has succeeded in getting into the limelight and has a following. Many may have been impressed by his work and are ready to accept his dicta as possessing a certain measure of authority, or at least as deserving consideration. As such, he ventures into the department of a special calling, a profession held by men of particular education and training, and to these specially instructed men he delivers opinions concerning their affairs, with a force and self-confidence that carry weight with men of his own type as well as the vast masses of less qualified judgment.

Instances are not wanting where men of superlative genius have instructed specialists in the latters' special sphere; as, when Napoleon pointed out to Talma an error in that great actor's conception of a character he had represented. But Napoleons are rare, and Sinclair is not a Bonaparte. Besides, the views of an emperor at whose feet all Europe lies are apt to be accepted as law, if not as gospel.

To the physician, the absurdity of Mr. Sinclair's assertion verges on the grotesque. All three diseases are of parasitic nature, syphilis and malaria being due to animal organisms, and gonorrhea to a coccus. That either could be in any manner affected by fasting is as likely as that pediculi capitisi could be banished by that means. In fact, Dr. Robinson would do well to propose phthisis as a better malady in which to make the test, since the laity could judge of the results more readily than in dealing with micro-organisms demonstrable only by the delicate methods of the biologic laboratory. Such a test surely would prove instructive to the rash Mr. Sinclair, and the easy gradation from a parasite visible to the naked eye to those that require the compound lens for their disclosure might result in an increase of his wisdom—also caution.

In every vocation of man there are to be found amateurs and professionals. Sometimes the former score off the latter; and then there is a howl of delight, for the crowd always sympathizes with its own and delights in going against the exclusive.

Very much more often, though, the amateur falls into error, making mistakes born of his own ignorance of the fundamental things everybody must learn who takes a regular course of instruction—but still the crowd sympathizes with

him, because "he couldn't be expected to know." True, but this self-same amateur should have realized his own ignorance before he proceeded to interfere.

A costly machine may be ruined by an ignorant interferer—and there is little consolation to the owner to be told that the rash one's intentions were good. What piece of machinery is as complicated and delicate as the human body? Nevertheless the rule holds good here.

A Pennsylvanian took his daughter to a quack, who diagnosed "a cancer humor in the blood." To bring out the "humor," he applied a strong solution of corrosive sublimate to her skin. The result needs no description at our hands, but patient as well as quack saw in the angry appearance of the skin the confirmation of the diagnosis. Again the caustic was applied, and it bit deeply into the tissues. A third application followed, and the girl died in the torments of the inferno, slowly burned to the bone.

At the trial the pretender to medical skill swore he really believed the destruction was the cancer humor coming out, and that he did not know the effects of the caustic he was applying; on which plea he was acquitted. The judge ruled that it was the father's duty to satisfy himself of a doctor's qualifications before entrusting his child to him; and that, when so accepted, if the doctor did his best so far as his knowledge and skill went, no more could be expected. The deception due to his claim of skill he did not possess seemed to be out of consideration.

This shocking catastrophe is by no means a solitary example of its kind; every community could furnish others, some quite as bad or worse.

There was that case of the man with the ankylosed knees. The doctors had refused to make any attempt to straighten the crooked legs, but there was in the vicinity one of those "natural geniuses" to whom such matters "come easily," and this fellow undertook to accomplish the cure. Finding the victim's limbs resisting his utmost strength, the man applied his homely, every-day common sense to the problem in a way that commended itself to all present. He had the barn-door taken off its hinges and brought to the sick room, laid the patient on the floor, put the door on top of him, and the "doctor," with two others, got on the door and "tramped!" Yes, and they actually straightened the crooked legs, so that three days later the man fitted into an ordinary-shaped coffin without any difficulty whatever.

Of a piece with this was an incident related not long ago in a drug journal. A woman applied for treatment, saying her child had swallowed some foreign body. The clerk replied that he did not know what to recommend, and she turned to leave; when another clerk, who, the journal marked exultantly, was a *salesman*, stepped forward and advised a bottle of magnesium citrate. The sale was made, and the clerk was commended for his astuteness.

Neither the druggist nor the editor in this case seemed to have a glimmering suspicion that the patient's life was imperiled by thus liquefying the stools that otherwise might have enveloped the foreign body and conducted it harmlessly through the intestinal tract. Had death followed, the clerk might have truthfully plead that, as he was not a doctor, he should not be expected to know the danger following his treatment. The public would generally have accepted this plea and the court sustained it; although to us it seems that, since the woman applied for advice on the assumption that the clerk was qualified to give

it and the latter accepted that assumption and gave the advice that resulted in death, both moral and legal responsibility should attach.

To impersonate an officer is sure to be followed by penalties if trouble results and the impersonator is caught. Is it less reprehensible to impersonate a doctor?

The remedy is the education of the people by ourselves. It does not take long to convince men that a costly watch should not be handed over to "just anyone" to tinker at, but must be entrusted only to an expert, known to be such.

If each of us were to do his individual part of this general duty, we should soon find the public realizing that there are experts in detecting and remedying defects in the working of the human machinery. We should hear less of dormant hipjoint disease aroused to activity by imprudent "osteopathy;" of children dying of easily curable disease because their parents were "science;" of people passing along to the incurable stages of maladies because they were exhorted to "forget it" when the first warnings of nature were given; of women's lives wrecked because the husband-to-be had entrusted the treatment of his gonorrhea to the corner druggist; or of the innumerable instances where neglect and ignorance aid the enemies of human life.

It's our own fault that these things are so—why not change them?

CHANGES IN PERSONNEL

On July 29th Dr. Ralph M. Buffington, who had been appointed by the State Board of Health as its Veterinarian, reported for service, thus filling the vacancy lately created by the resignation of Dr. T. J. Mahaffy.

New appointments as county agents are as follows: Holmes county, Dr. Jno. D. Gable of Bonifay; Citrus county, Dr. J. H. Chiles of Floral City, vice Dr. J. D. Bennett, resigned; Orange county, Dr. P. P. Pillans of Orlando, vice Dr. W. Kilmer, resigned; and for the western portion of Lake county, Dr. W. P. McKee of Eustis. Dr. W. D. Bush of Leesburg, as usual, will act as agent for the eastern portion of Lake county.

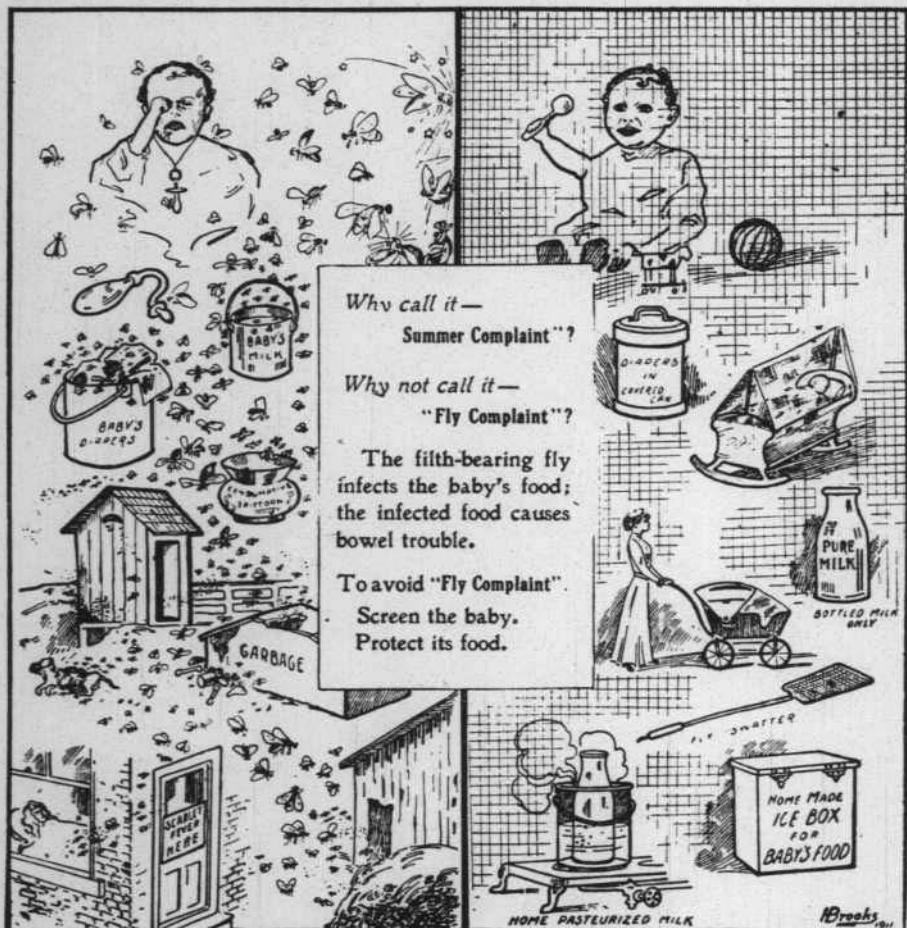
A NEW PUBLICATION ON MALARIA

The State Board of Health has received from the printer, and has ready for distribution, its publication 84, "Malaria, Its Prevention and Control." The articles which make up this publication were prepared by a special committee of the Florida Medical Association during 1910 and were issued through the State press. They can now be had in permanent pamphlet form upon application to this office.

PROTECT YOUR BABY FROM FLIES

FLIES FOR FILTH AND FEVER

T SCREENS FOR GLEANLINESS AND HEALTH



Poster, graphically warning of the danger of flies to babies, which has just lately been issued by the Chicago Department of Health.

FLORIDA

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*Once to every man and nation comes the moment to decide,
In the strife of Truth with Falsehood, for the good or evil side.*

—Lowell.

"TO THINE OWNSELF BE TRUE"

Over two thousand years ago a Roman governor asked,
 "But what is Truth?" 'Twas Pilate's question put
 To Truth itself, that deign'd him no reply.

The answer came in a drama whose conclusion was a tragedy, the sublime grandeur of which this world had never seen before. And since that time the toilers, those who seek after knowledge, and who delve into a study of hidden science, with an earnest desire to understand and to be confident in their enlightenment, have persistently labored to wrest Truth from their workings and thus to state nothing as a fact except when first tested by the knowledge of Truth itself. Human life is made up of certain characteristics which we know as principles. A principle is defined to be "a settled rule of action and a governing law of conduct which exercises a directing influence on the life and behavior of individuals," and is controlled in a great measure by heredity and environment.

Truth is a Divine principle, Faithfulness a conscience principle, Gratitude a loving principle, and Loyalty both a patriotic and self-respecting principle. Collectively these form character and character is in its truest analysis but an illustrative picture of human life.

A Truth is an incontrovertible fact, a knowledge gained from profound investigation, earnest study and crucial experimentation. When any one says he knows a thing, he is or must be firmly convinced and confidently certain of his statement, for unless the equation, whichever it may be, whether scientific, commercial, or psychological, has been worked out in its minutest detail of exactness, no one can say that he is certain of the result which he may have deduced; and here comes in the difference between knowledge and opinion. The first, naturally, carries conviction, while the latter is but a mere individual thought, which is worth only just as much as the standing or reputation of the person is valued by his neighbors, because an opinion is not a demonstrable fact, it may or may not be true, and it is the Truth only that teachers or those who pose as such, should attempt to impart.

No man, whether teacher, writer or plain every day citizen, can be true to the principle of manhood, either inherited or imbibed, who does not at least try to cultivate the spirit of earnest research, to gather Truth from thoughtful analysis of all subjects. He who persistently "twists the Truth to make a trap for fools," sooner or later will be distrusted, if not despised.

It is because the State Board of Health has diligently tried to be true to the people whom it delights to serve, and to the teaching and advice it has so consistently given to the people of Florida, that much stress is laid upon accurate information before speaking, so when the Board does state a fact it can be accepted, because gained by prolonged study, laboratory research and experience, and not from hearsay suppositions, or from self-conceited opinions of shallow thinkers.

"SMALLPOX CURES CONSCIENCE"—ILL-FATED EXEMPTION

We are indebted to Dr. J. J. Johnstone, public vaccinator, Bolton, for the following copy of a parent's statement, who is filled with remorse for having followed the advice of anti-vaccinators:

SIGNED STATEMENT BY MRS. WHITTAKER,
53 Nile Street, Bolton.

I have good reason to be sorry for having taken out an exemption paper for one of my children—Benjamin Thomas Whittaker. I had all my other children vaccinated, but my husband and I were persuaded to get this one exempted, with the result that he took smallpox along with me, at Burnley, and we were both in the hospital at the same time.

I had been vaccinated in infancy, and my attack was so mild that I am scarcely marked at all; but the little boy, then one year old, had the disease in such a malignant form that he was blind for a week, his mouth was almost closed for several days, and the skin on his face came away in solid pieces of matter and scale, and he was afterwards scarred and pitted from head to foot, even down to his finger ends.

Before having the smallpox he was a bonnie boy, but during part of the time he was in the hospital I scarcely knew him, and now he is so terribly disfigured as hardly to be recognized as the same child.

Besides this, from being a fine healthy child, he has since been almost constantly ailing and delicate; and the whole of this change in him I blame upon the smallpox.

Never again would I expose a child of mine to the risk of getting that loathsome and disfiguring disease—how loathsome and disfiguring only those who have had experience of it can have any idea of. I would rather do anything than risk having it in one of my children; and if parents are wise they will let their children be vaccinated over and over again, rather than expose them to it.—*The Medical Officer*, London, England, June 17, 1911.

ANTI-TYPHOID VACCINATION

Those of our readers who are interested in and who follow the advances made in serum therapy will be pleased, we know, to see what Dr. Jefferson Randolph Kean,* of the United States army, has to say in the *Journal of the American Medical Association* on Typhoid Prophylaxis (prevention) in an article on "The Sanitary Record of the Maneuver Division" in Texas during the summer of this year.

"Perhaps one-fourth of the troops arrived at San Antonio already immunized by voluntary antityphoid inoculations given them at their posts. It was concurrently determined by the division commander and the war department that the time had arrived to make this procedure compulsory for troops taking the field, and it was so ordered and carried out as rapidly as the prophylactic culture could be supplied from the laboratory of the army medical school. The technic was simple. The site of puncture, usually the outer side of the left arm, was sponged off with alcohol and a small area sterilized with tincture of iodin, the injection made with a sterile syringe and the puncture sealed with collodion. The first dose is 0.5 c. c., the second and third being 1 c. c. each. An interval of ten days is allowed between doses, the entire procedure thus taking twenty days. The injection is made into the subcutaneous connective tissues and not into the muscles. There was practically no-puncture infection, and the reaction was mild or absent in 90 per cent. of the cases treated. In no case was it followed by serious results. There were up to July 1, 8,097 men immunized."

1898.

TABLE SHOWING FOR THE REGIMENTS OF THE SECOND DIVISION OF THE SEVENTH ARMY CORPS, ASSEMBLED AT JACKSONVILLE, FLA., THE MORTALITY AND MORBIDITY FROM TYPHOID FEVER.

Regiments.	Mean Strength.	Cases of Typhoid Fever		Deaths from Typhoid Fever.	Deaths from all Diseases.
		Certain	Certain and Probable.		
Second Illinois	1,095	253	341	18	22
First North Carolina....	1,164	147	227	16	20
Second New Jersey.....	1,153	185	318	29	32
First Wisconsin	1,232	209	311	46	48
Fiftieth Iowa	1,097	164	253	33	33
Ninth Illinois	1,288	153	248	18	28
Second Virginia	1,220	105	152	17	20
Fourth Virginia	1,274	135	231	21	28
Forty-Ninth Iowa	1,236	378	612	50	50
Totals	10,759	1,729	2,693	248	281

*Kean, J. R., M. D., lieutenant-colonel, medical corps, United States army. Washington, D. C. The Sanitary Record of the Maneuver Division, *Jour. Amer. Med. Assn.*, Chicago, v. 57, Aug. 26, 1911, pp. 713-714.

1911.

TABLE SHOWING FOR THE ORGANIZATIONS COMPOSING THE MANEUVER DIVISION AT SAN ANTONIO, TEXAS, THE MORBIDITY AND MORTALITY FROM TYPHOID FEVER, MARCH 10 TO JULY 10, 1911.*

Organization.	Mean Strength June.	Cases of Typhoid Cer. and Prob.	Deaths from Typhoid Fever.	Deaths from all Diseases.
Eleventh Infantry	924	..	..	..
Fifteenth Infantry	969	..	..	2
Eighteenth Infantry	1,022	..	..	..
Thirteenth Infantry	929	..	..	..
Twenty-Second Infantry	1,033	..	..	..
Tenth Infantry	1,016	..	..	1
Seventeenth Infantry	954	..	..	..
Twenty-eighth Infantry	951	..	..	..
Third Field Artillery.....	847	..	..	2
Fourth Field Artillery.....	741	..	..	1
Engineer Battalion	536	..	..	1
Signal Corps	197	..	..	..
Ninth Cavalry	744	..	..	..
Eleventh Cavalry	1,143	..	..	3
Sanitary Troops	795	1†	..	1
Totals	12,801	1	0	11

*In addition to the above a civilian teamster, not immunized, was admitted for typhoid fever in April.

†This patient, a private of the hospital corps, had not completed his immunization, having taken only two doses. The case was very mild and would perhaps have been overlooked but for the rule that blood cultures were made in all cases of fever of over forty-eight hours' duration. The Widal reaction has no diagnostic value in immunized persons, as all respond to it. Forty-nine cases of typhoid fever, with nineteen deaths, were reported as occurring in the city of San Antonio during this period.

The immense advance in camp sanitation and particularly the value of this protective measure can be estimated by comparing the typhoid incidence of this camp with that of the Second Division, Seventh Army Corps, which was organized at Jacksonville, Fla., about June 1, 1898, and remained there in camp until October, some of the regiments leaving in September. This division was not conspicuously unfortunate in its typhoid record for that time, and is selected because of the close similarity of its conditions of service to those of the Maneuver Division. The two divisions were encamped in nearly the same latitude and for about the same length of time, and each had a good camp site and an artesian water supply of unimpeachable purity. While the period in camp of the Second Division, Seventh Army Corps, was later in the year, the number of men involved was larger for the Maneuver Division. The accompanying table referring to the former is taken from the celebrated "Report on Typhoid Fever in U. S. Military Camps in the Spanish War," by Reed, Vaughn and Shakespeare, Vol. 1, page 609.

HORRIBLE, EH?

The Associated Press informs the country that the war department, presumably acting under the advice of the surgeon-general of the United States army, has made vaccination against typhoid fever a compulsory feature of military sanitation. We now may be expected to hear various and deep imprecations hurled against Surgeon-General Torney from the anti-vaccinationists and self-constituted supervisors and would-be directors of all things mundane, because of this regulation, and that—not that he shall be asked to resign his position—but that he be KICKED OUT OF THE SERVICE for DARING to base a recommendation upon a knowledge gained from study and investigation.

SENATOR SLOAN EXPLAINS NEW FLY SCREEN LAW

Tallahassee True Democrat, June 16, 1911.

There seems to be a misunderstanding as to provisions of the law enacted by the last legislature, requiring hotels and other eating places, to screen against flies. Some papers in mentioning this matter, have stated that all openings will have to be screened. As author of the bill I will state that only kitchens, dining rooms and passageways between same, in hotels, restaurants, and boarding houses, will have to be screened, under provisions of this law. The only reason why the bill did not require the screening of all openings was because we feared it would not pass if it did. This law, if enforced, will not only be a protection to those who travel, and who must stop and eat somewhere, regardless of whether conditions are inviting, and conducive to comfort and health or not, being compelled as a rule, as conditions are now in the average eating place, to eat with the flies, with all the nausea which it causes, and risk which it involves, but it would be a splendid advertisement for our State, and a strong drawing card to those without our borders, which will repay many times over the small cost of complying with its provisions.

When people generally come to realize the great danger of too much familiarity with the common house fly, and that it costs much less to destroy their breeding places than it does to pay for treatment of diseases they cause, and to bury those who die from typhoid fever and other diseases, due largely to eating and drinking after this germ-laden product of the filth holes, and frequenter of the garbage barrel, and open privy, and other places of filth, it will not be necessary to force people by legislation to protect themselves against this one of the most deadly enemies of humanity. A source of great danger, which can be eliminated (and should be) by incorporated cities and towns is the sell-

ing of fruits and other articles of diet by fruit dealers and others selling this class of goods without making any effort to protect same from flies.

The largely increased trade which would result, especially on fruit, if people felt that they could eat same, without possibility of at the same time eating a case of typhoid fever or other disease, would repay many times over the case of keeping flies out. Some eating house people are complaining of this law, but if it is rigidly enforced it will save numbers of human lives, which should justify its passage and enforcement.

Respectfully,

D. H. SLOAN.

SWAT HIM!

Consider now the little fly, whose name is rhymed with "baby-bye."

He has his birth in the manure, crawls forth and loiters in the sewer, and, smeared with deadly typhoid germs, he leaves his brother maggot-worms, unfurls his dainty wings of silk and dumps his microbes in the milk, where their huge numbers mount and mount, increasing the bacterial count, until they reach the food supply some woman feeds her "baby-bye."

The fly comes gaily unto us, his feet all gummed with poison-pus, and singing clear his song so sweet, alights and cleans them on the meat. He gathers scarlet-fever spores and leaves them on the walls and floors; he is not proud, and oft will stoop to carry heavy loads of croup, and place it where its awful death may come and go with baby's breath. Oh, do not call him indolent! He calls that summer day misspent in which he's failed to load the breeze with the live germs of some disease; and if he finds them not, though hurt, he'll be content with just plain dirt.

Consider well the little fly, who buzzes so 'round "baby-bye."—*Exchange.*

THE MONEY VALUE OF BABIES

Dr. Martin Frederick, Health Officer of Cleveland, Ohio, is reported as saying that it costs about \$5,000.00 to raise a child from birth to the age of twenty years. At twenty years the average value of a child—supposedly a male—is \$5,000.00, based on an earning capacity of \$300 a year, a 6 per cent return on the investment.

Dr. Frederick further speculates that by the age of 30 the average man is worth \$16,000.00, that is, he has an earning capacity which is equal to 6 per cent on an investment of \$16,000.00. At 30 years the man has cost \$10,150.00 for growth and maintenance. So at that age

he has yielded a net gain of \$8,850.00. The whole value of a city, a State or a country lies in its people, says Dr. Frederick. To tell what a man in Cleveland is worth, all you have to do is to take the actual value of the city and divide it by the number of persons living here.

"Manhattan Island was once sold for a saddle and bridle by Indians. It wasn't worth any more than that, either. Its value now simply lies in the people it has. Its capitalization is based on the capitalization of its people.

"What would Cleveland be worth if you should move every one away from here? What would one of the skyscrapers here be worth if there were no people to occupy it?"

And if Dr. Frederick had gone a little further and said that the value of any place lies in the healthfulness of the people—for increase of population and expansion of investments with addition of capitalization follow good health conditions of living, not sickness and disease—he would have clinched his argument with the hammer of truth and fact.

Who would not give this world's stock of dogs, if needs be, in exchange for some loved one—father, mother, brother, sister, son or daughter, which had been bitten by a mad dog? Is there any comparison between the value placed upon the dog and person? Who would not give worlds for the relief and restoration of a loved one who suffers the agonizing and most awful death from hydrophobia? Why take chances on so many absolutely worthless dogs roaming about our town and county? Who would not gladly kill the dog after he had bitten some one? If he's a worthless sort of dog why wouldn't it be better to put him out of the way before he bites some one? Are these serious questions? May you never know from experience. Put the worthless dog out of the way or put a muzzle on him.—*Marianna Times-Courier*, June 15, 1911.

A Chinaman, renting from a lawyer, had to give up his house, and wanted the last month's rent free. The lawyer couldn't see it that way. But, Soon Key explained, "That is law." Whereupon there was much merriment that a Chinaman should try to tell a lawyer what the law was.

Is there anything strange about that, when doctors and health officers are told something about medicine and sanitation every day, by people who know as much about either as a Chinaman knows about law?

FILTERS

One day a man came into the office of the State Board of Health to request that we have the laboratory test out a water filter that he has. What he wanted was to show that this filter will filter out typhoid germs. He wanted the laboratory to put a culture of typhoid germs in water and then run it through the filter and see if any germs could be found afterward. What he was leading up to was a testimonial from the State Board of Health as to the value of his filter.

All this looked very innocent on its face. A thoroughly fair proposition all round. He had a filter to sell. He made certain claims for it. He wanted to show by the State Board of Health that it will do what he claims.

But wait. This done he would go out to sell it. He would tell that it will filter typhoid germs out of water. He would tell that the State Board of Health had shown this to be true. And the people would buy, thinking they were getting protection against typhoid fever.

Now are they? Would it make, say, the Jacksonville water any safer against typhoid fever to have it filtered? Certainly not. The water of Jacksonville is above reproach. So it is with most of the water in Florida. The drinking water of the State all comes from underground, so far as I know, with the single exception of Orlando, which gets it from a lake. And that lake, by the way, is a spring lake. In some parts of the State it comes from deep wells, and some from shallow. That from the deep wells is very pure, except for the soluble salts that it contains. And in a general way the spring water and the deep artesian water are very much alike. The shallow wells give a pure water also. The ground is an efficient filter through which surface water has to pass before it is returned by the pump. This has been tried out pretty severely here in Jacksonville. A number of city pumps, ranging in depth from six to eighteen feet, and located anywhere within ten to fifty feet of a surface closet, were examined and found to be free from sewage contamination, showing the great efficiency of the sand as a filter. In fact there are one or two springs in this State selling water on the solitary grounds of its purity. The analysis shows that it is of very low soluble salt content. In fact it is little or nothing more than rain water which has percolated down through the ground and burst up in a spring. Several wells and springs of similar analysis are now marketed.

From all of which it will be seen that as a rule we have no typhoid germs in the water to be filtered out. Then why install a filter to filter out something that is not there? Why play Don Quixote? Would it

be exactly fair for the Board to recommend a filter, however efficient it might be, when the need for it doesn't exist? And wouldn't it create the impression that the State Board of Health considered that the water needed filtering?

However good the filter might be, the Board looks upon it as a sort of harmless, though rather expensive nuisance. There is no need for a typhoid water filter where typhoid is not water borne. If he will send us a fly filter it will be more to the purpose.

BUT HOW CAN WE DO IT?

I have before me the Monthly Bulletin of the Ohio State Board of Health. Dr. Probst is Secretary of the State Board of Health of Ohio and a good man—a wide-awake health officer.

Looking over the contents I saw: How shall we combat measles and whooping-cough? (Discussion at conference of State and local boards of health, held at Columbus, January 26th and 27th, 1911.) I pricked up my ears, for this was the thing long sought after. How to control measles, whooping-cough, mumps, chickenpox, diphtheria, scarlatina, or even smallpox when people refuse to get vaccinated. I hoped to get something new on it, for they are well advanced in sanitary matters in Ohio. And when they all put their heads together, as they do in these conferences, I think I had a right to expect something of value. The discussion was confined to measles and whooping-cough. Dr. Hugg led the way. He had quarantined them awhile and then had given it up, in disgust. Dr. McGee thought the matter of caring for measles, whooping-cough and chickenpox was done all over the State in a slipshod way. He wanted them to be progressive and wipe these diseases out. That was the man I wanted to hear from. But he didn't tell how to do it, and that was the thing I wanted to know. Dr. Ford took up the matter of excluding children from school that had been exposed to the diseases, but that didn't solve the problem—didn't tell us how to control them. Dr. McCracken was quite pleased with placarding houses. They had been doing it a year or so. They would placard a house and depend upon the neighbors to report the others and thus they got a good many of them. He told how in one afternoon they rounded up and placarded twenty houses. But that was not what I wanted to know. I wanted to know how to keep from having the cases to be placarded. Dr. Hoyer placards for measles and has a very simple way of finding the cases. When a child is out of school 48 hours the truant officer goes after him. But that still didn't give the information I want—how to prevent the disease. Dr. Patter-

son was in favor of quarantining all cases. But that is not the point, please—tell me how to prevent the disease.

I read the report carefully and found the same troubles there that we have here. Mild cases. Cases not reported. Cases not recognized. Health officers quarantining, making a big noise, and the disease still spreading. One of the doctors who was quite satisfied with his methods had twenty houses to placard in a single afternoon! We have all that, too!

In the language of John Hay:

I leave the story where I did begin.

Dr. McConnell of Eustis perpetrated the following: The man that doesn't believe smallpox can be prevented by vaccination is like the old farmer who the traveler was telling of the various animals he had seen. Finally he told of the giraffe, with his long fore legs and short hind ones, and his slender neck, and spots all over; but that was too much for the farmer's credulity. He couldn't believe it. A circus came to town and the traveler took the farmer to show him. The farmer walked with hands in pocket, all around the tall animal, and looked at him from top to toe, and then walked off with the disgusted and final remark: "There ain't no such animal."

Isn't it strange that there is one alive to tell the story? Any person you meet is liable to be a typhoid carrier and it is dangerous to shake hands with him. Any cup you drink from may have some tuberculosis germs or something worse on it, and you have to drink or go thirsty. Any child may be a diphtheria carrier and spread death and destruction in its innocent wake wherever it goes. It is dangerous to go in public places, because you are sure to get exposed to some kind of carrier of disease. It is dangerous to ride in the cars because disease has recently been there. It is dangerous to shake hands for fear of the ubiquitous "carrier." It is dangerous to take communion for the same reason that taboos the cup. It is dangerous to kiss your wife lest you give her a microbe or get one yourself. It is dangerous to sleep in the house because the air is impure. It is dangerous to sleep out of doors because you may take cold. It is dangerous to eat without "Fletcherizing" your food. It is equally dangerous to chew with defective teeth. It is dangerous to eat cornbread for fear of getting pellagra. Dangerous to drink milk for fear of typhoid. Dangerous to eat fish for fear of food poisoning. Dangerous to get sick for fear of

a doctor—dangerous to keep well for fear of work—where will we land, anyway?

There is a story of Old King Canute, as old as the oldest hills. The courtiers of the king used to say to him that he could do everything he wished. They would even say to him that the very waves of the sea would obey his mandates. Finally one day the king got tired of all this flattery. Then he took a stool and went out and sat on the beach and told the waves not to come up and wet his feet, not to dare wet his feet. And the courtiers said they wouldn't do it. But they did. And after that the king reminded them of the waves when they got to telling him of his greatness.

But old King Canute is dead these many years. When people are great these days they don't test it out that way. Poor old King Canute!

TO ERADICATE HOOKWORMS IN COUNTY

(*Marianna Times-Courier*, June 15, 1911.)

At a meeting of Jackson County Medical Society here, on May 9th, we were requested to state in our columns that all indigent individuals residing in this county and suffering with hookworm would be treated free of charge provided they came before the society, which meets every second Tuesday in the county court house at 2:30 p. m. As a result of this notice, on last Tuesday there were thirteen diagnoses made for hookworm, and treatment given. The doctors of the county are certainly to be commended for this noble work, especially when we consider that they not only give their time but actually pay for the medicine used in treating them out of their pockets. This is a golden opportunity for all poor people in this county and the opportunity should not be allowed to pass unimproved. The doctors inform us there are hundreds of cases in this county, suffering with this malady, who are rendered practically worthless to themselves, their families and communities and that with proper treatment the picture would be reversed. So let us give the Jackson County Medical Society our hearty support and try to entirely eradicate our county of this life-sapping disease. Besides our local physicians, the following were present at the meeting on last Tuesday: Dr. Patterson, of Malone; Burkett and Willis, of Greenwood; Harris and McLeod, of Cypress, and Ryals, of Dellwood. Many others sent regrets, they could not attend the meeting on account of duty.

ABOLISHING THE DRINKING GLASSES

The following article is taken from *The Homeopathic Envoy*. It is a little overdrawn, but—

Prompted by the wisdom with which it is endowed the health board of the State of New Jersey has "ordered" that the tumblers, or drinking glasses, heretofore found under the faucet of the ice coolers on railroad cars, etc., must be removed. This order was obeyed and since then the public is confronted with a cooler full of water but no means of getting at it. The reason is "germs," of course. No one is known to have contracted disease from these glasses, but the theory, on which the action is based demonstrates to the theorists that every "germ" disease known ought to be spread by these glasses, even if it isn't, so, having the power, the board acted on the theory and let facts go hang. Hundreds, perhaps many thousands, of men, women and children have suffered severely during the intensely hot days from thirst, much aggravated by the dust. To be sure every one may provide the "individual cup," which will be free from "germs," but its owner's. This costs some money, necessitates carrying a tin cup in your pocket or satchel, and, so carried, is liable to become the dwelling of all sorts of "germs." To be consistent the board ought to compel the people to carry sterilizing outfits to make these cups safe from "germs." Also, while they are about it, they should order every one to provide himself with individual sterilized rubber covers for the car seats, rubber gloves for hands and sterilized gauze for the face, because the car seats offer a much better refuge for "germs" than does the clear, smooth glass which was rinsed every time it was used by most persons.

When health boards fall to fighting "germs" invisible to all but the canny bacteriologist, it is a debatable question whether they do not hurt the people far more than they do the probably mythical "germ"—mythical because it looks as if the day would come when they will have to acknowledge that the "germ" is but a tissue change caused by that thing we term disease, and know not what it is, whence it comes or whither it goes. Cleanliness, individual drinking vessels, etc., are very desirable, but expediency and common sense should rule in such matters as watering the public.

"Mrs. Baye is simply mad on the subject of germs, and sterilizes or filters everything in the house."

"How does she get along with her family?"

"Oh, even her relations are strained."—*Bulletin Texas State Board of Health.*

Specimens received and examined in the Bacteriological Laboratories of the State Board of Health of Florida during the first six months of 1911.

TOTALS BY MONTHS, 1911, ALL LABORATORIES, COMPARED TO 1910 TOTALS, SAME PERIOD.

	Jan.	Feb.	Mar.	Apr.	May.	June.	Total 1911.	Total 1910.	In-crease.	De-crease.
Diphtheria*	87	107	75	101	87	47	504	284	220	...
Gonorrhea	45	62	95	70	97	76	445	268	177	...
Hookworms	411	368	407	561	536	511	2794	3485	...	641
Other animal parasites	13	22	27	14	24	21	121	129	...	8
Malaria	455	340	445	469	561	520	2790	820	1970	...
Rabies	2	10	35	24	15	15	99	34	65	...
Tuberculosis	226	172	255	237	243	163	1296	807	489	...
Typhoid fever	126	133	250	251	364	409	1613	649	964	...
Water	5	...	9	27	6	4	51	24	27	...
Miscellaneous†	978	209	163	91	92	141	974	345	629	...

Totals, January
to June, 1911 1648 1423 1759 1925 2025 1907 10687 ... 4541 349

Totals, January
to June, 1910. 786 749 1025 1418 1418 1399 ... 6795

Increase, 1911. . 862 674 734 507 607 508 3892 ...

TOTALS BY LABORATORIES, FIRST SIX MONTHS OF 1911, COMPARED TO SAME PERIOD, 1910.

	Jan.	Feb.	Mar.	Apr.	May.	June.	Total 1911.	Total 1910.	In-crease.	De-crease.
Jacksonville	957	717	892	992	1057	907	5522	5759	...	237
Tampa	506	549	704	792	817	854	4222	1036	3186	...
Pensacola	183	157	163	141	151	146	943	(a) 943	...	...
	1648	1423	1759	1925	2025	1907	10687	6795	...	...
								Increase . . .	3892	

COMMENT

A study of the above figures showing the scope and amount of work done by the Laboratory Division of the State Board of Health during the first six months of 1911, as compared to the same period in 1910, is interesting and valuable in that it shows a steady and healthy growth of the work done each year, and demonstrates the value which such an institution may become to a State. The amount and scope of work of the laboratories does not, on account of space required, allow the Notes to give here the number of positive and negative examinations of each character of specimens, but this will be published in full next year in the report of the Board for 1911.

*Swabs and cultures.

†"Miscellaneous" includes blood counts, pathological examinations, animal inoculations, leprosy, ophthalmia, etc.

(a) The Pensacola Laboratory was opened June 28, 1910.

It is to be regretted that the number of examinations made for animal parasites has decreased the first six months over the same period in 1910, but this was not only expected, but could not be prevented. The Assistant State Health Officers have not been enabled this year to give the attention desired to the campaign for the amelioration of hookworm disease, for they have been busily engaged in vaccinating against and caring for smallpox in every part of the State. Then, too, many physicians who are doing the principal work in this State in hookworm disease have equipped themselves with microscopes and make their examinations in their own offices. Other physicians who submit specimens to the laboratory for this examination have adopted the system in many instances of giving two or three courses of thymol before a second specimen is submitted for examination. All this has had a tendency to lessen the number of hookworm examinations in the State Laboratories, yet it is believed that the disease is being recognized and treated in a larger number of cases than ever before.

FLY-SONG

Ten little flies
All in a line;
One got a swat!
Then there were * * * * * * * * * *
Nine little flies
Grimly sedate,
Licking their chops—
Swat! There were * * * * * * * * * *
Eight little flies
Raising some more—
Swat! Swat! Swat! Swat!
Then there were * * * *
Four little flies
Colored green-blue;
Swat! (Ain't it easy!)
Then there were * *
Two little flies
Dodged the civilian—
Early next day
There were a million!

—Buffalo News.

TO PHYSICIANS AND PARENTS

While children and grown-ups are undergoing treatment for hookworm disease is a good time to impress upon them the absolute necessity of avoiding future reinfection by the parasite. Emphasis should be laid upon the urgency of wearing proper shoes, as well as the installation of correct methods of disposing of sewage. Householders living

in rural districts or small towns where there are no municipal systems of sewage disposal should provide sanitary privies. This will not only prevent hookworm disease but will reduce the prevalence of typhoid fever.

COUNTY AGENTS STATE BOARD OF HEALTH OF FLORIDA

(August 7, 1911.)

<i>County.</i>	<i>Name of Agent.</i>	<i>Address.</i>
Alachua	Dr. J. H. Hodges	Gainesville.
Baker	Dr. J. F. Curtis	Macclenny.
Bradford	Dr. A. H. Freeman	Starke.
Brevard and St. Lucie	Dr. W. E. VanLandingham	Fort Pierce.
Citrus	Dr. J. H. Chiles	Floral City.
Clay	Dr. L. C. Fisher	Green Cove Springs.
Columbia	Dr. W. M. Ives	Lake City.
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Washington	Dr. F. C. Wilson	Chipley.

FLORIDA



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*Ill fares the land, to threatening ills a prey,
Where wealth accumulates and men decay.*

—Goldsmith.

WHAT IS A SERUM—WHAT IS VACCINE ?

The terms serum and vaccine have frequently been used in these pages, but the NOTES wonders if the reader understands exactly what they mean when connected with preventive medicine.

Suppose the NOTES tries to tell you and to make it plain. Please remember, though, that the NOTES is not now speaking to doctors but to the laity—the average every-day citizen and reader, to whom technical terms are mystifying.

But first a little anatomy, so that the subject of serum-therapy can be correctly understood. The blood is a "fluid which circulates through the heart arteries and veins supplying nutritive material to all parts of the body." In the human arterial blood is bright red, and venous blood a darker color. The blood consists of about 79 per cent of water and 21 per cent of solid matter. When blood is exposed to the atmosphere it coagulates, that is to say, separates into a clot-fibrine and into a yellowish fluid which is called serum. Now it is by this serum that the NOTES wishes to make it plain to you how a prevention—immunization the sanitarians call it, and it is a better word—is secured against certain contagious diseases. If you have read the last annual report of the State Board of Health you will know what is about to be said, because the story was then told to you—the people of Florida—very concisely and simply. It was explained that when bacillus—a germ—of certain contagious disease is injected into an animal which is susceptible, that the special disease can be produced at will in this animal. The injection makes the animal sick, but if repeated and repeated there comes a period or time when the animal is no more affected by the injection of the germ, and then it is known that it is protected against the particular disease; it is immunized, as the bacteriologists and sanitist say. There is produced in the animal's blood by repeated injections an antitoxin, which is an anti-body generated in the blood serum of the blood of the animal which has been injected by a specific bacterium. Is this plain; do you understand?

Now you ask how does a human become immune through an animal becoming immune? In this way: After the animal has reached a stage where the injection of a specific organism of the contagious disease no longer makes it sick, it is bled and the serum of the blood is examined in the laboratory to find out how rich it is in these antibodies, called anti-toxin, and then tests are made on animals which have previously been injected with the virulent organism, artificially grown in the laboratory, to see how much of the serum which has been taken from the immunized animal will be required to neutralize the poison

in the animal which has been inoculated with the artificially grown germs; and the injection of the immunized serum, combining with the toxin—the poison—produced by the specific bacterium, destroys its specific effect, and hence is known as an anti-toxin. This is serum-therapy; namely, the treatment of individuals to prevent an occurrence of a special contagious disorder by serum which has been taken from an animal in whose blood anti-bodies have been formed to overcome the toxin—poison—of the contagious disorder. In laboratory language: a phagocytic action, by which the resistant properties of the human economy hold in check the inroads of disease until overpowered by an excessive activity of the disease products.

It has been asked and very sensibly, too: In what respects, as far as results go, does serum anti-toxin differ from a vaccine? Practically there is no difference, the principle of immunization being the same. Again the bacteriologist comes to our assistance and tells us that a vaccine is a specially prepared bacillus of a specific disease, grown in the laboratory, and when killed and suspended in normal salt solution, can then be injected into the human to prevent an occurrence of certain diseases, for when injected the material or virus inserted increases the power of the patient's blood serum or leucocytes—the white or colorless blood corpuscles of the blood—to take up and destroy the diseased bacteria in the system of the person so treated.

There is this difference, however, between serum-therapy and vaccine-therapy. In serum-therapy the immunized serum when injected into the individual either sick with the contagious disease or liable to be infected by contact, overcomes the destructive quality of the specific organism, and assists the natural forces to throw off from the system the baneful effects of the specific poison, while in vaccine-therapy the effort is made to cause through the vaccine virus, whether injected or rubbed in, a mild but specific instance of the disease, thus the individual becomes immune by forming in his own blood an anti-body which affords protection from a greater and more virulent outburst of the disease. A striking instance of the former is in the administration of the anti-toxin for diphtheria, both as a curative as well as an immunizing agent, and of the Jenner vaccine as a protection and also an immunization against smallpox.

The NOTES hopes that it has made itself clear in this talk. It advises, however, all those who are interested in this subject of immunization against disease to ask for a copy of the last annual report of the State Board of Health, for the subject is gone more into detail there than space will allow the technique methods of manufacture and administration to be dwelt on here.

IRRATIONAL BIAS; WILFUL OPPOSITION; WHICH?

It is surprising that in this day of general enlightenment on all branches of scientific discovery, when inquiry into methods of ascertaining the truth of well established facts is so thorough and painstaking, that there should be any one who doubts, much less challenges, proofs which the microscope has established and which extended experimental research has verified. Articles on serum-therapeutics by writers whose names command respect in the literary world and whose opinions can not be pooh-hooed as visionary or purely theoretical, have appeared in the popular magazines from time to time, and the conclusions which they have come to have invariably been to the effect that serum-therapy holds forth more promise for future benefit to the human family in preventive measures against disease than any treatment or other medicaments; therefore, it is due to no lack of information, which may be said to have been spread broadcast, that any one can now be ignorant of these means which are known as preventive and by which sickness can be avoided or suppressed. The dream of the sanitist has always been for means and methods by which sickness can be avoided, the employment of agencies whereby, without causing illness or producing but temporary inconvenience, persons can be rendered immune to contagious disease. When this hope is fulfilled the ideal in this respect may be reached, although the millennium may then have come, when there will be no more need of cure, for it is said that there will be "no more suffering nor death," but until that time arrives there is, nevertheless, good reason to believe from the rapid advance which has already been made in laboratory investigations, and by the progressive desire for deeper research, which is constantly being shown by those who are giving patient labor and earnest thought that there will be brought forth from well tested observations and a plodding into what has hitherto seemed to be hidden mysteries, such knowledge that there will be but few of the contagious diseases for which an immunizing vaccine or serum can not be found, so that the human family when exposed to a specific germ disease may be protected, whether the exposure is by direct contagion or by subtle influence not known.

Thanks to Jenner, it is now known—known, not supposed nor conjectured—that smallpox is prevented by vaccination. It is also known, thanks to Pasteur, that hydrophobia can be prevented after the bite of a rabid animal—whether in the human or in the lower animal—by the injection of a serum; a preparation which by gradation of strength gives to the system—blood and nervous tissue—of the person bitten an ability

to oppose and antagonize the specific virus of rabies which the saliva of the rabid animal has conveyed. Thanks to Behring, it is now known that after a series of injections of the diphtheria bacillus into a horse, that the serum of the blood of the horse finally reaches a point which will negative the action of the bacillus of diphtheria in the human and exercise both a curative effect on the sick as well as preventive result on those who may have been exposed to diphtheria.

. Thanks both to Behring and Kitasato, gunshot wounds, accidents from fireworks, powder burns of toy pistols, and injuries received around stables are robbed of dread and fear, when treated immediately with the anti-toxin which they discovered, and which when early administered will prevent lockjaw.

It is due to the investigations of Chantemesse and Widal, and later on to Leishman and Wright, that it is now known that an emulsion of the dead bacillus of typhoid fever, when injected into a human on three different occasions in two different potentialities, will prevent an attack of typhoid fever, and give an immunity to the disease for several years.

To Koch and Kitasato is due the credit for the discovery that by a special preparation of the cholera bacillus, cholera can be prevented in those exposed. So, too, in regards to plague, immunization is brought about in two ways: (a) active immunization, which is the inoculation of cultures of the plague bacillus or its products, or, (b) passive immunization, which is the inoculation of blood sera of animals which have undergone active immunization.

Quite recently much interest has been manifested by the agricultural districts of the State in the immunity which hog cholera serum gives to the swineherd when administered in the presence of hog cholera. Demands for the service of the veterinarian of the State Board of Health have come thick and fast from almost every nook and cranny of the State, when it was known that the last legislature had authorized the State Board of Health to distribute this vaccine free to the farmers of the State. (A pause here made long enough to say that all requests have been entered and complied with as rapidly as possible and the Board has added to its personnel in the veterinary division of its work by enlisting the assistants of the State Health Officer to help out in this direction.)

The laboratory has lately announced that soon another of the contagious diseases will be added to the list for which protective vaccine is found. Measles have been artificially produced in monkeys and the germ of the disease isolated.

Now, serum-therapy or therapeutics is nothing more nor less than effecting an immunity against a specific disease by producing in an individual a mild attack, so mild as to be hardly perceptible, of the malady itself—that the individual suffers no discomfort or but slight inconvenience, yet is thoroughly protected when exposed. This is not a supposition nor a theory, but is a *fact*, proven, seen and demonstrated in thousands and thousands of persons yearly.

What can be said, therefore, of people as a class or of individuals, especially physicians, who deny the efficiency of such preventive means against disease and oppose the administration of these agents which, when used, will ward off sickness or will check illness after it has been contracted?

These thoughts have been suggested by an incident occurring quite lately in this State, when some doctors—the NOTES dislikes to tell of it—opposed the administration of diphtheria antitoxin either as a preventive measure or curative agent. What can be said of these men who call themselves teachers of the people—for doctor means teacher—and who in the face of proven facts, persistently and deliberately reject the result of laboratory findings and the teaching of eminent investigators?

Elsewhere in this number is reproduced an article from *American Medicine* on the mortality from diphtheria, which bears on this point, especially on the responsibility of the doctor, in the paragraph which says, "For a medical man to assume an antagonistic attitude to antitoxin comes perilously near to wilful negligence, and the time is close at hand when failure to use antitoxin will impose criminal as well as civil responsibility."

ANTITYPHOID VACCINATION

The following extracts concerning vaccination against typhoid fever are taken from the *Public Health Reports* of the United States Public Health and Marine Hospital Service for October 6, 1911, and should be entertaining and instructive to those readers interested in public health work, and especially in preventive measures against disease now being almost daily brought to light through serum therapeutics. The entire article, as published in the *Public Health Reports*, can not, on account of its length, be reproduced here.

"The prevalence of typhoid fever in practically every section of the United States makes any measure which will protect the individual or assist in preventing the spread of the disease of importance to health

authorities, and of general interest. The production of artificial immunity against typhoid fever by antityphoid vaccination constitutes such a measure, and promises to have a considerable sphere of usefulness, especially for those about to enter conditions in which they will be unduly exposed to the disease, namely, physicians, nurses, hospital internes and externes, travelers, and armies.

"However, although antityphoid vaccination is useful in the protection of the individual under the limitations noted in the report which follows, it should in no wise supplant the measures now in use and advocated for the prevention of the spread of the disease from the sick to the well. It should not lessen the precautions at the bedside, the disinfection of typhoid excreta in the household, the keeping of water supplies, both private and public, free from contamination, the purification of public water supplies where indicated, and the supervision of the production and sale of milk and other foodstuffs.

"Antityphoid vaccine can now be obtained, by physicians wishing to use it, in the same way and at the same places as other biological products such as diphtheria antitoxin and vaccine for smallpox.

"A commission appointed by the Academy of Medicine of Paris to report upon the status of antityphoid vaccination has recently made its report. The commission consisted of Mm. Chantemesse, Delorme, Kelsch, Landouzy, Netter, Roux, Thoinet, Vaillard, Widal and H. Vincent, *rappoiteur*. The report was written by H. Vincent and the conclusions were adopted by the commission. The report consists largely of a review of the experiments and statistics upon which the use of antityphoid vaccine is based.

"Because of the interest and importance of the subject to health authorities and others, a translation has been made of extracts from this report, published in the April, 1911, Bulletin of the International Office of Public Hygiene at Paris. For the convenience of the reader the order of the report has been changed and the summary of the report and the conclusions of the commission placed first and the discussion and statistics last."—*Extracts from the Report of the Commission Appointed by the Academy of Medicine of Paris.* (Translated by Joseph W. Schereschewsky, passed assistant surgeon, United States Public Health and Marine Hospital Service.)*

SUMMARY.

The facts and information contained in this report, as well as the indications for antityphoid vaccination may be summarized as follows:

*From the Bull. de l'Off. Int. d'Hyg., Publ., Apr., 1911, pp. 631-662.

First: Antityphoid vaccination has for several years been applied with success in the English, German, and American Army. More than 100,000 persons have been inoculated either in their native country or especially in colonies where these soldiers were sent and where typhoid fever is prevalent.

The antityphoid vaccines, hitherto the most frequently employed, have been the bacillary vaccines—that is, cultures of Elberth's bacillus killed by heat.

Second: The benefits conferred by these preventive inoculations are revealed by comparative statistics of the typhoid morbidity and mortality, on the one hand, among soldiers subjected to the vaccination and, on the other, among the unvaccinated. The former have presented a case incidence of typhoid fever at least one-half that of the latter.

Third: Antityphoid vaccination does not accomplish the complete disappearance of this infectious disease in the communities where it is practiced, but it diminishes very notably its frequency. Moreover, such of the vaccinated who contract typhoid fever notwithstanding have much milder attacks than unvaccinated subjects. The percentage of deaths supervening among the former is one-half that of the non-vaccinated typhoid patients.

Fourth: A single inoculation of bacillary vaccine assures a less efficacious protection than two or three injections. For vaccination by autolysates of living bacteria four injections are made.

Fifth: Relative or complete, the immunity engendered by anti-typhoid vaccination appears to last from one year (Pfeiffer-Kolle vaccine) to four years (Wright's vaccine). It is, therefore, advantageous, if it is desired to prolong this period of immunity, to have recourse to revaccination.

Sixth: No matter which vaccine is used, antityphoid vaccination has shown itself to be without danger for the very numerous persons who have been inoculated.

From the observations of Wright, Pfeiffer and Kolle, Bassenge and Mayer, and others, it appears that injections of vaccines of dead bacilli, while harmless in themselves, give rise often to fever as well as painful local and general symptoms. These disappear in from 24 to 48 hours.

The proposition has been made to employ the autolysate of living bacilli as an antigen. This vaccine is much better borne, and causes but little pain or none at all.

Seventh: The inoculation of bacillary antityphoid vaccine may determine at times, for a period of from one to three weeks, a state of diminished resistance on the part of the subject to infection with Eberth's bacillus. This may result in a temporary predisposition to this infection. Although this is denied by Leishman and others, nevertheless, as a precautionary measure, vaccinal inoculations should never be made during an epidemic nor in persons who certainly have been exposed within less than three weeks to the contagion of typhoid fever. Preventive vaccination should, therefore, be generally undertaken before the usual time of the apparition of epidemics in localities and communities where they are habitually observed.

Eighth: For the same reason, and during the period immediately following inoculations, every person vaccinated against typhoid fever should take the strictest precautions in order to avoid the chances of typhoid infection by a careful watch upon the water that is drunk and the food that is eaten as well as by rigorous personal hygiene and cleanliness. The period during which such precautions must be taken has a duration of two or three weeks at the most.

Ninth: In the Army and Navy antityphoid vaccination is destined to render real service, more particularly in Algeria and Tunis, as well as in the colonies where typhoid fever is frequent and severe,

When there are no cases of typhoid fever and no danger of an epidemic at the place of destination of soldiers and sailors, the inoculations may be undertaken upon their arrival. In the contrary event, the inoculations should precede, by at least three weeks, the arrival of these young men in colonies where the disease exists in endemic form.

Tenth: Antityphoid vaccination should be formally interdicted for every subject in whom typhoid fever seems imminent or at the beginning of an attack. It may, indeed, aggravate the disease.

Antityphoid vaccination should be practiced only upon perfectly healthy subjects, free from all organic or other defects and from local or general affections, no matter what their nature, especially tuberculosis.

Except in unusual circumstances, the vaccination of debilitated and delicate persons, who are likely to exhibit too severe a reaction to the antigen, is to be avoided.

Eleventh: Antityphoid vaccination, under present circumstances, can only be voluntary.

Nevertheless, it is highly important and advantageous to encourage its use by instructing communities as well as the military and the

numerous other persons exposed to typhoid infection as to the degree of protection that may be expected from this specific method of immunization.

Twelfth: The different antityphoid vaccines derived from cultures of dead bacilli, whose efficacy has been demonstrated upon animals by Chantemesse and Widal, and subsequently upon man by Pfeiffer and Kolle, Wright and others, have shown themselves to be equally efficacious, with the exception that the immunity from Wright's vaccine is more prolonged.

By reason of the painful reactions which the bacillary vaccines frequently give rise to, in vaccinated subjects, it is expedient to consider and to test vaccines obtained by the autolysis of living bacteria or any other vaccine showing itself to be efficacious and free from objection.

Thirteenth: Among persons who may be designated as particularly to be benefited by antityphoid vaccination, the following may be enumerated:

- (a) Physicians, internes, medical students, male and female nurses in military and civil hospitals.
- (b) Persons members of families in which bacillus carriers have been demonstrated.
- (c) Young persons of both sexes who have come from salubrious regions in the country to cities which are habitual foci of typhoid fever.
- (d) The population of cities where the latter disease is frequent.
- (e) Soldiers and sailors (rank and file) sent either to Algeria or Tunis, or to colonies where typhoid fever is epidemic or endemic.

CONCLUSION.

Our general conclusion is derived from the long series of scientific observations which have accumulated during the last few years. These observations, made upon man, derive their value both from their number and their results. They are still further fortified by the unanimous indorsements in England, Germany, and the United States, by the highest and most competent medical authority of these nations.

This conclusion is as follows: *There are grounds for recommending the voluntary employment of antityphoid vaccination as a rational and practical method of diminishing, by a sensible proportion, the frequence and gravity of typhoid fever in France and in the French colonies.*

This recommendation is addressed to all whose profession, whose usual or accidental methods of alimentation, whose daily or frequent association with the sick or with bacillus carriers, expose them to direct or indirect contagion by the bacillus of typhoid fever. (The conclusion, put to a vote, was adopted.)

DIPHTHERIA AND THE USE OF ANTITOXIN

The death rate from diphtheria has been steadily declining ever since the discovery of antitoxin. Probably no fact of modern medicine is more incontrovertible. France has led the way and with its mortality rate the lowest of all the civilized countries of the world, takes unquestionable leadership among progressive nations. Her success, however, serves to put all the other countries to shame. If France can achieve such a distinctive triumph over one of humanity's dread diseases, other countries can do likewise. In the United States, failure to equal or still further lower the record of France points to two causes, both reprehensible in the extreme.

The first is failure to accept antitoxin universally as an absolute specific for diphtheria. It is inconceivable how any intelligent person—a medical practitioner especially—can deny the specificity of diphtheria antitoxin. One has only to compare the death rate without the use of antitoxin, with the death rate under its use; to receive incontestable evidence of the benefits that are certain from this absolute specific. To be sure, the tendency of the age is toward a declining death rate, irrespective of remedial measures. Any number of cities have reported during the past few years, lower death rates from all causes. Modern hygiene and sanitation are essentially accomplishing much in preventing mortality and promoting longevity. But in connection with no other disease is there such notable and absolute evidence of specific control by a definite remedy, as in diphtheria and its control by antitoxin. Consequently denial or repudiation of the effect of antitoxin is not only irrational, it is all too often simply blind prejudice. For a medical man to assume an antagonistic attitude to antitoxin comes perilously near to wilful negligence, and the time is close at hand when failure to use antitoxin will impose criminal as well as civil responsibility. This will remove not only the first cause of our present inability to equal or better the diphtheria death rate of France, but also the second and quite as important—the failure of the average American physician to use antitoxin properly. The French clinician employs antitoxin more promptly and heroically. He studies his patient, notes the particular virulence of each individual infection and adjusts the amount and method of use—frequency and so forth—accordingly. He has a wholesome fear of diphtheria, but not of antitoxin. He recognizes certain dangers—as part of all forms of internal medication—but knows that these are as nothing compared to the graver dangers of the disease itself. The antitoxin used by the French physician is no better or safer than that prepared in America;

indeed there are not a few reasons for believing that our American antitoxin is more potent, more uniform in unit strength and more free from by-effects such as rashes, etc. Therefore the American physician should entertain less apprehension in using antitoxin than his French confrere.

Unfortunately, this is not the case, and many American physicians, while believing implicitly in antitoxin, fall short of securing the results they should by reason of their timidity in the use of proper dosage. The unwarranted antagonism to antitoxin that has had widespread publication in so-called health journals, and in the literature of the health charlatans, has not only created false fears in the minds of the laity, but what is more serious and regrettable, has led innumerable physicians in spite of their scientific convictions to administer antitoxin with trepidation. In other words the bugbear of an occasional antitoxin eruption has obscured the infinitely graver dangers of diphtheria itself. It is high time that every intelligent medical man freed himself from the false fears created by those who, his judgment must tell him, are ignorant—or worse. One thing is certain, the American death rate from diphtheria will never be lowered to the point it should until American physicians use antitoxin as promptly and as freely as experience and the results justify.—*American Medicine*, Dec., 1910.

THE SPREAD OF SCARLET FEVER AND DIPHTHERIA IN SCHOOLS

*The public, and most health officers, are inclined to consider the intercourse of children in schools as a common cause of the spread of these diseases. This view is encouraged by the fact that during the summer time, when the schools are not in session, there are usually much fewer cases than at other seasons of the year. English statistics published, year after year, particularly those of London, show that there is a decrease in the prevalence of scarlet fever and diphtheria during the summer vacation, which in England is only for four weeks in August, and that this is followed by an increase when schools open. It also appears that the seasonal variations are more marked in children of school age than in those younger and older. Kerr, the Medical Officer of Education of London, has given this subject much careful study, and his conclusions are not in accord with popular notions. In 1907 he had shown that a considerable part of the reduction in reported cases was due to the absence from London during the holidays of many children of school age. Thus the absence from London rep-

resented about 18 per cent. of the holiday period, which accounted for the larger part of the 29 per cent. reduction in scarlet fever and diphtheria. A more intensive inquiry, made in Battersea (London), in 1909, showed that many light cases are not seen by a physician, and are missed entirely during the holidays, but are during school time discovered by the "attendance officer," who visits the houses of the children to discover the cause of absences. These two causes, the absence of children from the city, and the "missing" of cases, seem to account for most of the apparent decrease in reported cases which occurs in the holidays. The increase in cases after the opening of school was shown not to be the result of school attendance. Thus the reported cases of diphtheria at school age in the first week of school was for all London 27, and for the second week 99. But these 99 cases were carefully investigated, and it was found that in 69 there had been no case of diphtheria in the school within one month. In fifteen instances there had been a case in the schools within one month, but none in the same class (room?) and no connection could be traced, and in some instances infection out of school was discovered. Two cases, sisters, in one school proved to be the cause of subsequent cases, and three other cases in one school were due to carriers. Thus the assumed excess of 52 cases due to school infection, an increase of practically 100 per cent. was shown by detailed study to be really 10 per cent. The three cases in one school were due to carriers, and Kerr suggests that a part of the increase in scarlet fever and diphtheria in the autumn may be due to the cumulative effect of "missed" cases occurring during the holidays, many of which cases, he shows, would have been discovered by the attendance officer if the schools had been in session.

Kerr has also shown that the diseases under consideration spread chiefly by contact infection, which is the view now generally held by health officials, and that the conditions for this contact infection are far less favorable in school than out. Twenty-six scarlet cases which had been attending school were only discovered when desquamating. Only two cases developed from these 26. The danger to be apprehended from infection of the schoolroom itself is practically nothing, and the routine disinfection "of unoffending tables, chairs and floors" is deprecated. In the 26 instances of scarlet fever cases in school mentioned above, disinfection was performed only twice, on request of the sanitary authority, and it happened that one of the two secondary cases was after disinfection.

A tabulation was made of the reported cases of scarlet fever and diphtheria in Providence among school children for the five years ending in 1908. This showed that scarlet fever exhibited a marked decrease in each year before the summer vacation, and that diphtheria decreased in three of the five years. In half the instances the autumnal increase in these diseases began before the schools opened, and in one other instance the increase of scarlet fever was delayed until a month after the opening of schools. As the beginning and the ending of the summer drop in these two diseases is thus shown to be independent of school sessions, there is no reason for assuming that the decrease is at all dependent on the closure of schools. A study of the curves indicates that the decrease of scarlet fever and diphtheria in the summertime is correlated with the temperature, but not through the schools.

A similar study of the seasonal distribution of all cases of these two diseases for the ten years ending in 1903 shows that the beginning and ending of the summer decline have no apparent causal connection with school attendance, as it usually precedes instead of follows the opening and closing of the schools. The relation is no more marked when school children alone are studied than when all cases are considered.

The period of incubation of scarlet fever and diphtheria is so short that if school attendance has any influence on the spread of these diseases it is not impossible that the short vacation of a week to ten days may have a noticeable effect. Indeed it is frequently alleged that such an effect is easily seen. But in Providence there was a decrease of these diseases 21 times in the week following the short vacation, an increase 20 times, and the number of cases remained the same 8 times. The study of school children alone, 1904-8, showed a decrease after the vacation 9 times, an increase 13 times and the same number of cases 4 times.

For the purpose of studying the incidence of these diseases in schools in Providence sets of cards are kept, one set for scarlet fever and one set for diphtheria, with a card for each school. On these cards is noted every case of the disease which develops in a pupil attending the school, and also every case of the disease which develops in the family though not in the person of a pupil. By this means any excess of the disease in a school is at once noted. In Brighton, England, a large chart is kept in the health office on which is noted against each school the cases of contagious disease therein occurring.

By these means it is found that outbreaks do occur in which cases of scarlet fever and diphtheria develop from contact in school, or per-

haps more often during recess, or while the children are coming or going. That a certain number of cases are reported among the pupils of a school does not necessarily prove that they have any relation to school attendance. An investigation of the cases shows that often they are, either certainly or probably, due to neighborhood rather than school contact. Yet school outbreaks do occur. During the past 26 years there have apparently been in Providence twenty such outbreaks of diphtheria and eight of scarlet fever.

Another reason for doubting that school attendance greatly influences the prevalence of scarlet fever and diphtheria is that these diseases are more common in children under school age than they are among those of school age. The following table shows the age distribution of the reported cases of scarlet fever and diphtheria in Providence for 21 years:

DIPHTHERIA—1889-1909.		SCARLET FEVER—1889-1909.		
Under	1 year.....	197	Under	
"	1 "	491	1 year.....	264
"	2 "	738	" 2 "	528
"	3 "	795	" 3 "	891
"	4 "	813	" 4 "	1,097
"	5 "	764	" 5 "	1,090
"	6 "	775	" 6 "	1,171
"	7 "	665	" 7 "	1,141
"	8 "	565	" 8 "	1,027
"	9 "	463	" 9 "	868
"	10 "	371	" 10 "	713
"	11 "	333	" 11 "	577
"	12 "	285	" 12 "	418
"	13 "	200	" 13 "	362
"	14 "	147	" 14 "	245
"	15 "	119	" 15 "	227
"	16 "	105	" 16 "	149
"	17 "	94	" 17 "	128
"	18 "	79	" 18 "	121
"	19 "	67	" 19 "	74
"	20 "	79	" 20 "	69
Adults	1,219	Adults	58	
		9,364	11,858	

It will be observed that the amount of disease increases until the first year of school attendance when it begins to fall off. It is remarkable if school attendance has sufficient influence to cause the autumnal increase in these diseases as is so often alleged, that it has not sufficient influence to at least keep up the disease after children reach the age when they begin to go to school.

While it appears to be true that the diseases under consideration rarely spread in schools, and that the schools are safer than the streets, yet a certain small amount of infection probably does at times take place in school. This of course should be guarded against by taking

every reasonable precaution. It is probable that the rules in regard to the school attendance of children from families where these diseases exist, are in most of our cities amply sufficient to prevent extension from reported cases. Indeed these rules are probably often unnecessarily stringent. Disinfection of the school is, generally speaking, a useless procedure. The trouble comes not from the recognized cases but from the "missed cases" and healthy carriers. How to discover these and what to do with them is an unsolved problem. It is true that the medical inspection of schools has resulted in the discovery of some cases ~~that~~ would otherwise have been missed, and that it is probable that the increasing interest of the teachers will discover more of them. But the carriers, and indeed some mild cases, are likely never to be discovered. To prevent harm from such it is necessary to reduce to a minimum the chances for the exchange of saliva and other secretions. The common drinking cup must go. The use of the slate encourages carelessness with the saliva. Each child should have its own pencil and they should not be exchanged. The roller towel is almost as bad as the common drinking cup. The teacher must teach personal cleanliness by precept and example. If she licks her fingers to turn over papers, or moistens her pencil on her lips, she is teaching the children to exchange saliva and inoculate themselves with diphtheria bacilli. The use of modeling clay and sand, and much other kindergarten work, encourages personal uncleanliness and suggests that human secretions are in no way harmful. If, however, the child is taught to wash its hands, and wipe them on its own towel, before touching the clay, and to keep the fingers out of the mouth while modeling he will learn that it is wrong to inflict his own saliva on another. By such teaching the spread of contagious diseases in schools may be made even less than it is.—By Charles V. Chapin, Supt. of Health, Providence, R. I.—*American Journal of Public Hygiene.*

IF YOU WANT TO KNOW

If you want to know how it feels to be shunned as a leper, and hear people cry as they point their finger at you "unclean!" "unclean!" and rush off to have the State Board of Health come and get you and take you to the "*pest house*," and keep you there, and not let you get out, and have guards over you, and have scabs on your face, and hands, and feet, and scars when you get well—if you want to know how it feels, just don't get vaccinated, and you'll find out.

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*One ship drives east and another west,
While the self-same breezes blow.
It's the set of the sails and not the gales
That bids them where to go.*

—John Burroughs.

THE MOTE AND THE BEAM

A long time ago—in the dim and musty past—a speck of dust forced through a crevice of the window blinds, floated around a darkened room, lighting first on a chair, then on a table and finally found a resting place in a still more darkened corner. This tiny mote, although almost invisible to the human eye, was made up of myriads of disease germs, coming from a mass of filth and dirt, which a street sweeper had but a few moments before stirred up in passing up and down the street. By and by some one came in the room and partly squared the blinds letting in a stream of light which fell upon the little mote. "Ha, ha," said the Beam, "you are discovered, and must be gotten rid of. You are dangerous, might be breathed in the lungs of some one, and there is no knowing what then might happen to that unlucky individual." "Well, well," said the Mote, "could you but look backwards and see the countless number of atoms like myself which are dancing and sparkling in the wake of your streak of light, you might commence to find fault with your own self, before accusing me of wrongdoing, and—" But here the servant girl came in, and throwing open the windows, the beam of light disappeared and broom and cloth soon wiped out of existence the mote and her fellow atoms of dust. The contention between the two ended here, but the lesson of the incident has lived through succeeding ages.

To complain of the faults of other people and their lack of civic pride and proneness to indifference in sanitary matters, while at the same time their own commissions and omissions in these directions are staring them in the face, is to observe the *mote* and fail to see the *beam* of their own defects and mistakes. This evidence of frailty and weakness in human nature is not easily overcome because of an inherent tendency to selfishness which seemingly is born in and is firmly imbedded in the human race. Public officials encounter this peculiarity of mankind almost every day, and no class of officials more so than health officers and those who come in close contact with the public when dealing with methods and measures to restrain disease either in propagation or spread or when likewise endeavoring to correct nuisances which may be productive of disease or destroyers of individual comfort. Just why a housewife should think her neighbor has been guilty of gross carelessness and is culpable of sanitary neglect of her premises, and at the same time be totally oblivious to her own shortcomings in many unhealthful happenings about her own surroundings, can only

be explained by the proneness of mortals to be captious of the acts of others and blind to their own imperfections. Hardly a day passes but a letter is not received at the office of the State Board of Health particularizing some imagined sanitary violation of a supposed rule or regulation of the Board in regard to nuisances which may be detrimental to health. "My neighbor's horse died upon the public highway, not far from my residence; please send some one to remove it, as it smells badly," or "My neighbor keeps cows and pigs, which are a nuisance—at least I think so; please send some one to investigate," or "Over-ripe fruit is allowed to rot on station platform. Send some one to order it to be taken away," when if an examination of the back yards and premises of these same complainants is made they would show up tin cans half full of water, surface closets unscreened, and breeding flies by the millions, tank-cisterns unscreened, permitting mosquitoes to propagate by the billions, and an accumulation of trash and rubbish, which if not unhealthful emphasizes a decided lack of civic pride and self-respect. "Instead of writing to the Board of Health, of either State or city, that Mr. or Mrs. 'So-and-So' is maintaining a dirty back yard or is slothful in appearance of premises," says a writer, "when if he or she will look after their own premises, enclosures or homes, to sift out lapses and oversights, he or she would be doing the correct thing." For instance: Suppose diligent search is made at least once a week—daily would be better—for such things as may reasonably be considered contributing to unhealthy conditions, and then correct them. Clean up, not in a perfunctory manner, but thoroughly, by clearing away all tin cans, broken bottles or anything which may hold water, if only a tablespoonful, and cart such trash to the cremator or dump pile to be burned; the possible breeding places of mosquitoes may then be destroyed. Or again: Suppose the stable is kept scrupulously clean—if one is fortunate in having a horse—and the manure swept up and put in a fly screened bin, to be emptied and carted away and burned, at least twice a week, is not an effort being made to lessen the quantities of flies in the neighborhood?

Now, with mosquitoes diminished in number and flies driven out by suppressing their breeding places, the summer months in tropical latitudes can be made more salutary and decidedly more comfortable. Don't say, pray don't, "It is useless for me to look after these defects, when my neighbor is indifferent and careless." The NOTES is talking now to every one within the sound of its voice or the sight of its writing, and who will read these lines; therefore, if each one will heed the advice there will be no neighbor to complain of. If each citizen will

do his or her duty in maintaining sanitary conditions in homes and about his premises, there will be no *Motes* and *Beams* to take notice of, or complain about.

ALWAYS SO!

The ridiculous position in which the "antis" generally place themselves in assuming an immunity to disease would be grotesque were it not that there are many who without stopping to think for themselves are willing to be led by the high-sounding phrases and pretended knowledge of these charlatans. It will generally be found that when a man or a woman contends that vaccines of different character do not protect the individual against an attack of the disease for which special immunization is performed, they either contracted the disease themselves at some past period or are protected by the distinctive vaccination itself. Those who are loudest in their denunciation of vaccination as a preventive measure against smallpox are known to have been vaccinated in infancy or in early youth. Of course, such an individual can with perfect propriety and truthfulness state that he or she will not contract smallpox and that he or she has no fear of the disease, but in doing this they are, as Kipling very aptly puts it, "Twisting the truth to set a trap for fools," and are deliberately, and it may be said, with malice aforethought, leading unsuspecting and susceptible people into danger and perhaps unto death.

The following from an exchange tells a story which is of almost daily occurrence:

"A New Yorker of English origin has recently distinguished himself by a threat to shoot any physician who ventures to carry out the law and vaccinate his children preparatory to their entering one of the public schools. We are reminded that the *bona fides* of anti-vaccinationists are not always absolute. In the terrible epidemic of smallpox in Montreal in 1885, which was due in great part to the objection of a large illiterate population to submit to vaccination from motives mainly superstitious, a certain English speaking physician distinguished himself by his loud championship of the antis. The time came when it became necessary for this gentleman to make a business trip out of town. Like other travelers on the train he was requested to bare his arm, and, if unable to exhibit a 'good mark,' to submit to the lancet. Despite his protests and loud announcement of his name and carefully acquired reputation, the inspectors were firm, and up went the doctor's sleeve. What was the mingled feeling of amusement and disgust of the pas-

sengers to see upon the arm of this champion of liberty a superb vaccination mark certainly not over six weeks old!"—*American Medicine*, December, 1910.

"BE PREPARED"

In one of the cities of the State, on one of the southernmost islands, on a certain Sunday of October, special services were conducted in one of the places of worship for the "Boy Scout" organization. It was an interesting service, consisting in a recital of the Scout vow, and the twelve points of the Scout law, which were given in unison by the two troops of Boy Scouts. The boys in their khaki uniform, with neatly tied cravats, and well brushed hair, and intelligent faces made a very impressive foreground to a picture which had as its setting the older members of the congregation and citizens of the island. Explanatory addresses of the purpose of the organization and its institution were made by the Scout masters, with a stirring appeal by the mayor of the town and the Scout commissioner for an earnest endeavor from the boys to carry into their practical life work the cardinal features of the Scout law. The motto of the Scouts is, "Be Prepared," and listening to the addresses the thought occurred and recurred, why should not this motto be altogether a suitable one for the sanitarian—the sanitary workers of the country. Watchfulness is an intrinsic attribute of an earnest endeavor to do right. Being prepared denotes a conception of vigilance at all times; and a readiness to meet difficulties and dangers that cannot be anticipated or foreseen. And coming face to face with obstacles, be they small or large, to be ready for the fight, if fight it be for the right, or by tactful proceeding turn what had the appearance of defeat to a masterful victory. The health officer, the advisor of the public in all matters relating to promoting and maintaining good health, has to be in a state of preparedness at all times, and there is no individual member of society who can appreciate this motto of "Be Prepared" more than he. Every health officer or member of a health organization is intuitively and by instinctive knowledge a "Scout." He or they may not go on "hikes" in the country to demonstrate his or their ability to cope with the material embarrassments of trying to live, but nevertheless there are demands upon them far more arduous and prolonged in tests of mental and physical endurance, in patient pleading and earnest coaxing with the people to conform to Nature's laws and so escape Nature's punishment.

Dr. Walter Wyman

Surgeon-General Walter Wyman, of the United States Public Health and Marine-Hospital Service, died Monday night, November 20, 1911, in Washington.

Dr. Wyman was a little past sixty-three years of age. He had been in the Marine-Hospital Service since 1876, having been Surgeon-General since 1902.

In addition to the degrees A. B. and M. D., he has had the honorary degree of LL. D. conferred on him by the Western University of Pennsylvania and the University of Maryland.

Dr. Wyman was a man of strong personality and was the chief factor in bringing the United States Public Health and Marine-Hospital Service to its present high state of excellency.

The nation mourns the loss of one of its best men.

THE VALUE OF A COUNTENANCE

We have heard it hinted that a certain citizen of the State has had his countenance injured by smallpox, for which he holds a certain railroad responsible, and has accordingly entered suit to have the same put in good repairs. He estimates the damage that his face has suffered at \$25,000, we have heard, and then again we have heard \$100,000.

This it seems ought to materially improve his countenance, if indeed not put it in first-class repairs.

The case promises to be an interesting one in that it will give the lawyers a chance to spar over the value of a countenance, and perchance may result in a court ruling that will fix the responsibility of protecting a valuable countenance against such untoward calamity. Such a ruling would be of vital importance, however much we might regret that it is to be had at such a cost. We would not predict that if such a high face valuation is approved by the courts that we will not only see hair and teeth for sale, but whole faces as well!

DISTINGUISHED DOCTORS TALK ABOUT CHOLERA

New York, August 12.—Two distinguished physicians who testified at the State quarantine investigation today to their belief in the efficiency of Health Officer Doty, incidentally gave some interesting opinions regarding cholera.

Dr. William H. Polk, dean of the Cornell medical college, characterized fumigation as a useless sop to public superstition.

Dr. Simon Flexner, head of the Rockefeller institute of research, said he thought Dr. Doty's work at quarantine had set a new standard for the whole world. The danger from cholera did not come from developed cases that could be identified, he said, but from the cholera "carrier" whose identity could be discovered only through careful bacteriological examination. The cholera germ, he said, could be received only in the mouth.—*Times-Union, August 13, 1911.*

Dr. William H. Polk, dean of the Cornell Medical College, (Cornell is the State University of New York), "*characterized fumigation as a useless sop to public superstition.*"

Now, just what do you think of that?

Dr. Polk doesn't vend "opinions" but he is a man of knowledge. There is a difference.

A NOT UNUSUAL OCCURRENCE

On October 28th the office was informed "that a disease, somewhat resembling smallpox, has broken out in" an East Coast community six miles distant from one of the prettiest towns in the State. The disease was confined at the time to negroes, some were quite ill, others had recovered. The Board was requested to take whatever steps were "deemed necessary in the matter." The local authorities, it was said, did not seem willing to do anything and the physicians who had attended the cases had stated an inability to make a positive diagnosis.

One of the Assistant State Health Officers was at once detailed to proceed to that point, make a diagnosis, and institute proper measures, if it was found to be a disease over which the Board has control.

In the assistant's report of findings and actions, this pertinent comment on facts is given:

"Three months ago this disease made its appearance; was diagnosed as chickenpox by a physician from a nearby city and also by a local physician. Upon investigation by me three well developed cases of variola (smallpox) were found, one a severe case, the two others mild. I understand from the citizens that quite a good many negroes have had the disease and recovered. The negro school was inspected but could find no cases. Succeeded in vaccinating five negroes. Vaccination was talked to all persons met with. The white people say they would rather take chances than be vaccinated. Presume they desire to become infected. As soon as a few cases occur among the whites no doubt they will awaken to the fact of its contagiousness among the Caucasian and will then submit to the protection."

"I placarded the two houses where the disease was found and instructed inmates as usual. Gave the local practitioner vaccine points and explained to him our mode of handling the disease; tried to impress on all that we would institute no quarantine by guarding and that the only protection we would guarantee would be to submit to successful vaccination."

FORMALIN POISON FOR FLIES

Formalin is a very successful poison for flies in spite of many reports to the contrary. I have recently used it extensively with excellent results, and have induced many of the Raleigh people to use it also, and practically all of them are having great success. The method that I have found most successful is the use of formalin in milk in the following proportions:

1 ounce (two tablespoonfuls) of formalin.

16 ounces (one pint) of equal parts milk and water.

In this proportion the mixture seems to attract the flies much better than when the formalin is used in sweetened water, the method that has usually been recommended. The formalin-milk mixture should be exposed in shallow plates—a pint will make five or six plates—and by putting a piece of bread in the middle of the plate, it furnishes more space for the flies to alight and feed and in this way serves to attract a greater number of them.

I first used this poison in a milk room where the flies were very numerous, and poisoned over 5,000 flies in less than twenty-four hours, on several different occasions. Over a pint of flies were swept up in this room each time the poison was used. Another very conclusive test was made in a large calf barn where flies were extremely numerous. I exposed six ordinary size plates of the formalin poison mixture and killed about forty thousand (four quarts of flies), between 12 o'clock noon, and 8:00 the next morning. This is only an illustration of what can be done by the use of formalin around stables where the flies are breeding.

I could cite a number of cases where the formalin poison mixture has been used in unscreened kitchens and dining rooms and resulted in killing practically all of the flies.

A good place to use this formalin is on the front and back porches, where flies are frequently numerous, waiting to enter whenever the doors are opened. I know several people who are using it successfully in this manner.

Formalin costs only fifty cents a pint at retail price. This shows that the treatment suggested is cheap as well as effective. It is true that there are some more or less successful fly poisons on the market, but nothing as cheap and effective as formalin.—*Prof. R. I. Smith, Entomologist, N. C. Agricultural Experiment Station, in Bulletin N. C. Board of Health.*

“BABY BYE”

(Many years after) Theodore Tilton.

Baby bye,
Here's a fly,
Let us watch him, you and I.
How he crawls
In the stalls
'Thout his overalls.
I believe on those six legs
Clings the filth of garbage kegs.
There he goes
On his toes
Soiling baby's nose.

Mouldy bread
On his head,
Poisons on his back are spread.
That small speck
On his neck
Tiny lives would wreck.
I can show you, if you choose,
Horrid germs upon his shoes—
Three smirched pairs,
Laden hairs,
All his life he wears.

Black and brown
Is his gown
Though he wears it upside down
You can see it is he
Wears malignancy.
He goes crawling in the street
Gathering foulness on his feet,
Then tonight
He'll sleep tight
On your wall so bright.

Soon he'll fly
Low and high,
Lighting on the food nearby,
Leaving dust,
Yes, he must
Poison every crust.
Now, does baby understand

Dirty flies shan't kiss her hand?
Near the crumb
On her thumb
He should never come.

Catch him? Yes,
There's one less,
We don't want him on your dress.
He's a foe,
That is so,
Everyone should know.
Do you see his wings of silk
Waving in the baby's milk?
That won't do,
Shoo, fly, shoo.
There, I've killed but two.

Flies can eat
Bread and meat,
But they're very far from neat,
Nor shall we
Fail to see
That the fly must flee.
Tongues to talk have you and I,
We must talk about the fly,
Raise a din,
Work and win,
To delay is sin.

Kill the fly,
Let him die,
Leave him not to multiply.
In and out
They gad about,
Seeking food, no doubt.
From unsanitary homes,
To our own he often roams.
Put up screens,
Try all means,
Health upon this leans.

MRS. W. S. BRANCH.
Orlando, Fla.

CHANGES IN PERSONNEL

On October 9th Dr. Chas. F. Dawson was appointed Veterinarian of the State Board of Health, effective November 1st, vice Dr. R. M. Buffington, whose resignation had some weeks before been accepted.

Dr. Buffington has accepted an appointment as Veterinarian in the United States Army, and his first post of duty is Fort Barrancas, near Pensacola.

Dr. Dawson will be well remembered by the citizens of Florida as the Veterinarian of the University of Florida when that institution was located at Lake City. An arrangement at that time between the University and the State Board of Health was made, whereby Dr. Dawson was engaged by the Board as its Veterinarian at such times as this service was necessary, this dating from May 20, 1904. Upon the abolishment of the University at Lake City and its removal to Gainesville, Dr. Dawson was appointed a regular attache of the State Board of Health. He then served the Board as its Veterinarian until March 20, 1907, when he went to Delaware to take up the duties of Veterinarian at the Delaware College Agricultural Experimental Station, which appointment he has now resigned to again enter the service of the State Board of Health of Florida.

The Board is very fortunate in securing the services of Dr. Dawson to care for the rapidly increasing activity in the Veterinary Division of its work.

On November 9th Dr. F. W. Wilcox, of St. Petersburg, was appointed Agent of the State Board of Health for that western portion of Hillsboro County known as the Pinellas Peninsula, vice Dr. C. R. Wilcox, resigned. By a recent vote of the electors of that section of Hillsboro County, the new County of Pinellas has been created.

WEEDS DO NOT BREED MOSQUITOES

How long! Oh how long, before it will be understood that weeds do not breed mosquitoes!!! Can't that simple fact seep in? After all these years of hammering is it possible that there are still people that pass for intelligent who haven't learned any better? No wonder hookworms prevail when they have such soil! Arise, ye sleepers, throw off "This lethargy that creeps through all thy senses," and learn for once and all time that WEEDS DO NOT BREED MOSQUITOES! CATCH ON?

WHOLE FAMILY SICK

The following telegram was received, and marked urgent:
"State Board of Health,

"Jacksonville, Fla.

"Please send hog cholera treatment for twenty and hookworm treatment for five. Whole family sick."

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